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Editorial Notes

AS we write the excavating season in England is in full swing. Verulamium (St. Albans), Colchester, Richborough and Hembury are all sites of first-rate importance, and they are all, needless to say, in good hands. In Wales the prehistoric hill-fort of Llanmelin above Caerleon is again being attacked, and on Hadrian's Wall the *vicus* of Housesteads and the fort of Birdoswald. It is not without significance that at four of these seven sites attention is being directed to native settlements outside Roman towns (or forts). In the Cotswolds new ground is being broken at Salmonsbury, outside Bourton-on-the-Water, where a small walled town is being excavated. This, too, is an outstanding site, and it has yielded both Roman and pre-Roman remains.

If the season of 1932 is equally eventful—and already it promises to be—we shall have plenty to show our guests during the International Congress of Prehistoric and Protohistoric Studies which meets in London next summer (25 to 30 July). It is gratifying to know that the preliminary discussions in Berne have had this satisfactory result, for it was no secret that certain difficulties had to be overcome. Gatherings like this serve a useful purpose if they make known to one another the real workers in a common field of research. The

best results are often achieved as much by formal and informal discussions as by the reading of papers. At the ideal Congress, as at the best dinners, there would be few speeches but many opportunities of personal intercourse.

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The Congress may well prove to be a landmark in the history of archaeology : for a new start was made at Berne. The representatives of sixteen nations agreed that it would be both easier and more desirable to found a new Congress than to revive the old one. This bold, but obviously right, decision was the inevitable outcome of recent events, and we feel sure that, under the capable direction of its permanent Council, the new Congress will have a prosperous career. The British representatives on the Council are Sir Charles Peers and Professor J. L. Myres, and the British secretaries Professor Gordon Childe and Mr Christopher Hawkes.

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There was a friendly argument at Berne about the title of the Congress itself (with its implications)—whether to retain the old one (Congrès internationaux d'Anthropologie et d'Archéologie préhistoriques) or invent a new one. The second course was almost unanimously adopted, and the new title is International Congress of Prehistoric and Protohistoric Studies. We think the decision was a wise one. In theory, no doubt, the mingling of archaeology and anthropology is quite proper, but in practice the fusion is often very incomplete, and is not likely to be assisted by the holding of a joint Congress. There are however certain aspects of anthropology in which archaeologists are directly interested—such subjects for instance as the megalith-makers of Assam or the cave-dwellers of Tunisia. Here are found living survivals of primitive cultures, which contribute directly to an understanding of prehistoric conditions. We are glad that, under the new constitution, such subjects will not be ruled out. They are on quite a different footing from the unrelated study of primitive customs and the anatomy of the human body.

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For instance, a motion-picture like Mr Hilton Simpson's of primitive life in the Aurès mountains of Algeria falls well within the scope of the Congress. From such displays it is possible to learn more about the sort of life prehistoric man led than from many archaeological

papers. For it must be confessed that lectures with a 'human touch' of this kind do much to relieve the monotony of technical discourses, and are always well attended by both specialists and the general public. ANTIQUITY has consistently advocated the policy of flood-lighting the past by means of the present. We believe that much anthropological research, however valuable in itself, does not achieve this result, and had therefore better be left to its own specialists.

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One of the inevitable recurrent by-products of excavation is the controversy about leaving excavations open, as opposed to filling in. This cropped up three years ago in the London papers, and the pros and cons were stated by an experienced digger. Theoretically, the best course to adopt after uncovering the ruins of a town, palace, temple, or other building, is to leave them open for inspection under suitable weatherproof protection. The classic instance of this is the Palace of Minos at Cnossos in Crete. Here protection, admirably combined with a minimum of legitimate restoration, has been carried out in irreproachable style by Sir Arthur Evans. In this country similar conservative measures have been carried out by the Ancient Monuments Branch of H.M. Office of Works, whose achievements in this direction are still too little appreciated. (In order to realize what we owe to an enlightened policy of conservation, critics should watch some southern craftsman reconstructing the past from a single brick or from a few loose tesserae).

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But the argument is not one which can be profitably conducted on purely theoretical lines. Those who advocate the leaving open of ruins should visit some of the Long Barrows and Roman Villas that were ravaged and left desolate during the last century. Rain, frost and vegetation will soon have destroyed them utterly. In nine cases out of ten it is a duty to re-cover the remains with earth, and in the tenth to construct some weatherproof protection. This practice is now pretty generally observed in Great Britain, but the difficulties to be met are sometimes forgotten, and no harm will be done by restating them for the benefit of the interested parties. Needless to say we have no particular modern instances in mind.

Our National and other libraries are used so generally that we make no apology for giving our support to the Society of Friends of the National Libraries which has been formed. Everyone knows that libraries are the last institutions to receive proper financial assistance, and the amount allotted from public sources is ludicrously small for the services which are expected. From time to time we are informed that such and such a collection of papers of the utmost importance for the study of National History is likely to leave the country, or that books of great rarity are to be offered for sale, and that the ordinary funds available are inadequate to acquire them. It is in such cases as these that the Society now formed will be of use. Just as the National Art-Collections Fund has saved many a masterpiece for England, so may we hope that the ' Friends ' will become as great a force in acquiring documents and books which, on account of their historical, literary, or bibliographical interest, should become National property.

The word ' National ' does not imply that such purchases will necessarily always be made for the great libraries. It is proposed to frame the constitution of the Society so that assistance may be given to university, municipal, and other libraries, which in their several capacities serve the needs of the community at large. We welcome the happy idea of including them.

To be really effective, wide and generous support is required and we feel sure that this will be forthcoming, even in these difficult days. Inquiries concerning the Society, and subscriptions, should be sent to the Hon. Secretary, Mr H. D. Ziman, British Museum, London, W.C. 1.

History in Art

by Sir Flinders Petrie
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WHEN we look at the great diversity of man's activities and interests, it is evident how much space they afford for reviewing his history in many different ways. To most of our historians the view of the political power and course of legislation has seemed all that need be noticed ; others have dealt with history in religion, or the growth of mind in changes of moral standards, as in Lecky's fine work. In recent years the history of knowledge in medicine, in the applied sciences, and in abstract mathematics, has been profitably studied, as affording the basis of civilization. The purely mental view is shown in the social life and customs of each age, and expressed in the growth of Art. This last expression of man's spirit has great advantages in its presentation ; the material from different ages is of a comparable nature, and it is easily placed together to contrast its differences. Moreover it covers a wider range of time than we can yet observe in any other aspect of man's past. No doubt it touches only a portion of man's scope, but it is as essential to his nature as any of the other aspects that we have named.

The appreciation of Art has varied with the taste of the times. In the Renaissance the sculptures that were retrieved were used as adjuncts to the social life of the age ; they served to decorate the villas and gardens, they were fitted into the current requirements, were restored, or polished, or merely used up like any other materials subservient to the wishes of man and the life of the times. To our present taste, all things ancient are used to enable us to penetrate to the life of their own times ; we humbly set ourselves aside, and seek for the labours of the past, not to add to our own productions, but to try to see life from the ancient point of view. We wish to think like a Greek or an Assyrian in contemplating their work and, by means of it, to enter into their life as much as we are able.

Some of us may sympathize most with the crude struggles for expression, as in the cubism or jazz of our own day; others value more

the freshness of the final trace of archaism in the *quattrocento* and the Maidens of pre-Persian age, or the archaistic work of Hadrian and of our pre-Rafaelites ; at the other extreme, our grandfathers preferred the full-blown expression of Correggio or the pomposity of Rome. Whatever stage of the cycle of Art was cherished mattered little—the cycle went on as it had gone on in all ages, through growth and decay. Whether the brilliance of spring, the fulness of summer, or the rich fruit of autumn were more pleasing, the ' Great Year ' could still be observed from any point of view. The last two generations have given us the power to trace these cycles of Art through a far longer range than our fore-runners could grasp. Eight or nine revolutions of civilization are in our view, and from them we can trace the similarities of their course, and so perceive the general make-up of the mind of man, separating that which is constitutional in his life from the casual changes of his circumstances.

To understand these changes, we need to have the material facts laid before us in a comparable form, without mere redundancy but with complete coherence, so that each stage can be grasped in its source and its fruition. Such an exposition of special periods is needful for study, quite apart from mere samples in general volumes which give first impressions.

We may notice here some recent works of both these classes. One of the most important is *The Sculpture and Sculptors of the Greeks*,[1] by Miss Richter, curator of Classical Art at New Haven. This provides an excellent series of over seven hundred photographs, chosen and arranged to give a real exposition of three hundred pages of text, and no ways a mere picture book like too many publishers' ventures. The text deals with various branches of the art, and with the history of the sculptors. For every fact and opinion quoted, full references are given, and a valuable ' tentative chronology ' states the essential facts for judgment on each example by historical references and details. Thus we have here the material for outlining other questions, which are not debated or suggested in the text, but which enable an enquirer to handle in one volume some matters which would otherwise need a library of folios.

Two prominent questions we may glance at here, for which this volume supplies first aid. The fashion of the iliac line, or the emphasis of fulness over the hips, extending into a strong basal line to the abdomen,

[1] Milford, Oxford University Press, 1930, 55*s*.

is only too obtrusive in later statuary. No such feature appears in the earlier work ; the hips and groins are treated perfectly naturally down to 430 B.C., as in the Parthenon, and such naturalism extended to 350 B.C. at the Mausoleum. The emphatic iliac line first appears in 420 B.C. at Phigaleia, and it spread in fashion until it was brutally emphasized in Roman work. The appearance of it in Roman versions of Myron and Polykleitos (*circa* 450) are probably due to Roman treatment in the copy.

A subject of the widest implications is the type of facial expression. The archaic smirk prevailed down to 500 B.C., but began to fade into a smile then, and this change was at 490 in Aigina. There followed a heavy type of face from 490 to 480 (Euthydikos maiden and Eleusis maiden) ; suddenly an entirely free and graceful treatment was born between 480 and 470, as seen on the Ludovisi throne. What caused this change ? The historical crisis then was the Persian invasion, and the leaving of the wreck of the army of Mardonius, said to be 300,000 Persians, abandoned in Greece to form part of the great Athenian slave population of 400,000—many times more than the free citizens. It must have been Persians who toiled in all the great quarrying and sculpture at which Greece laboured in the years following the invasion. The treasures of camp furniture were all left behind in the rout; the great king could take but little when fleeing to the scanty shipping, and only a minority of the invaders could hope to return when the bridge was gone. Asia was left derelict in Europe. What was the effect on Greece of all the sudden acquisition of wealth and artistic treasure and skilled labour ?

This Persian element is entirely ignored by Dr Richter. She omits the Satrap on his sarcophagus of Sidon, worth any number of figures of the mourner's sarcophagus. Yet the Perso-Greek work of the Satrap is supreme in the highest qualities. Its differences from Greek work must be credited to Persian art. Its characteristics are reserve and dignity : the expressiveness of attitude is seen even in a back view, like Watts' rich man sorrowing; also repression of detail, the absence of any hard definition, like the broad washes of a master in water-colour. Further, the whole surface of the scenes is deliberately frosted, with a roughened face to the stone ; this is not due to accidental solution, as it is absent on the surfaces above, and below on the leafage border. The style relies on expression by general masses, without dependance on detail—a character never attained in Greek work. Such was the content of that flood of Aryan art poured into

Greece ; no wonder that such influence acting on the Greek spirit made the immense change from the tentative style which preceded the invasion, transforming it into the finest work known to us.

A very useful chapter contrasts the products of forgers with the original sculptures, and illustrates the obvious failings of copyists, both Roman and modern. The banality and trivial style of modern attempts is only too evident, and I confess that on ground of expression one may doubt some of the sculptures which are accepted here as ancient. There may, however, be uninspired work in any age. The skilful creations of Dossena are barely mentioned ; his good faith fortunately escaped the smirch of the dealers who exploited him, and he was commissioned by the Government afterwards.

This whole work, within its scope, is most valuable as summing up the evidences of data for monuments, and giving most of the comparative material arranged, with full references. It contains essentially what an archaeologist requires for the definition of style, and dating, in sculpture.

Another work, even more comprehensive, is Dr Swindler's *Ancient Painting from the earliest times to the period of Christian Art*,[2] which gives 640 photographs to a full discussion in text. The width of range, however, is scarcely proportionate ; the author's interest lies in classical art, which occupies five-sixths of the work, leaving but little for such important sections as Prehistoric Art, Egypt, Iraq, and Persia. These need more detail if they are to stand alongside of the meticulous treatment of Greek vase painters.

In the Egyptian section it should be observed that in the very early tomb of Hesy are the first painted figures of offerings of the actual size, being thus the painted substitutes for the real objects. The depicting of woodwork there shows most careful imitation of the grain of the wood. The ceiling patterns of the palmetto, spiral, and fret, which are quoted as being of the XVIIIth dynasty, are more than a thousand years earlier at Qau, as already published five years ago. The disputed question of the high lights on figures cannot be judged from the present state of the Amarna fresco of the princesses in the Ashmolean, as that has been altered by varnishing. When freshly found, the high light was clearly a powdering with orpiment on the red-brown surface.

[2] Milford, Oxford University Press, 1930, 25*s*.

The background, described as covered with a diamond pattern, is really the embroidered cushion on which the queen was seated.

The Syrian influence in the art of Akhenaten is here supposed to have been transmitted from Crete, but others have recognized that the work is not to be traced to Crete. Since the discovery of naturalistic Syrian work, full of animation and new detail, at this period (Beth-pelet ivory), the Syrian origin of the Egyptian reform seems evident. The only colour plate for Egypt here is a late and uninspired work, copied without even the original spirit and character.

The debate whether schematic drawing is primitive, or a degradation of natural form, seems settled if we observe that children begin by attributing meaning to the simplest strokes, which are mere symbols to the mind ; only gradually do they learn distinction of form. This would not, however, exclude degradation.

On the art of Greece a fair space is allowed to Crete, but the luxury of detail is given to the hundred and thirty Greek vase painters who are specified. The Hellenistic and Roman periods are also handled, but less fully. The influx of Persian workers and ideas is not recognized, but yet we read of ' the impetus which came into art after the Persian wars '. The succession of the arts is acknowledged ; ' although sculpture had attained its zenith by the end of the 5th century, painting was not really in control of its media until the age of Alexander '. The same order of development is seen in the 13th century sculpture and 15th century painting in Europe, and also in the earlier cycles of art.

The influence of slave labour in general should be noticed, not only in Greece, but in the Roman slave raids ; these brought in a mass of workers who imported their late Celtic patterns from Gaul, their plaiting patterns from Dacia, and their pottery decoration from Mesopotamia, and passed these on to the Roman world.

Roman painting occupies more than a quarter of the volume. The illustrations are mostly on a small scale, which may be justified by the usual lack of detail. In naming the types of the apostles, the constant distinction of character between Peter the priest and institutionalist, and Paul the prophet and evangelist, should be observed. The last survival of classical design in stucco reliefs of the 9th century at S. Pietro in Monte, deserves mention. In the discussion of technical methods at the end there is some confused chemistry needing mineralogical revision. The work supplies a valuable and necessary study of ancient painting as a whole. The Yale University Press has

done a service by issuing such compendious volumes on painting and on sculpture as the two noticed here.

A much more extensive view is that of prehistoric man in *The Art and Religion of Fossil Man*,[3] by Prof. Luquet. This work has the advantage of presenting the subject from a new point of view, and the geologist and archaeologist may ponder a fresh handling of the motives of prehistoric work by a professor of philosophy. In estimating evidence this is an advantage. With a large amount of illustration, and abundant references, we find here an appreciation of all the facts, carefully and cautiously balanced without any prejudice. The intention with which the figures were painted or engraved is discussed, and the conclusion is ' To my mind the sorcerer-artists had been inevitably preceded by artists pure and simple, and I consider it is impossible for figured art to have been anything but a disinterested activity in its initial phase '. ' The attribution of wall paintings to a decorative intention does not seem to me more satisfactory than their justification by a magical view '. ' Aurignacian figured art is exclusively . . . dictated by the pleasure the artist took in creating images of actual beings '. This seems a very judicial summing up on all the evidence discussed.

The excessive development shown in female figures ' may be explained by a naturalistic rendition of the actual aspect, at most accentuated in the sense of certain aesthetic ideals ', and it is therefore no evidence of a devotion to fecundity.

The contracted burials are discussed, but without any allusion to the obvious origin in the huddled position of illness and death, like the sleeping girl from Tarkhan in University College, London.

The great question of the general abilities of prehistoric compared with modern man, is scarcely touched. But we must not conclude that what we happen to find is the utmost that was realized. The whole of the woodwork and plaiting has vanished. The trimmed bones (fig. 96) are no ruder than the natural baboon-like flints treasured in the temple of Abydos along with fine carving and glazing ; the drawings are better than those on Amratian pots which are excellently shaped and baked ; the figures adapted to the shape of material (p. 141) are adapted like Chinese carvings in blocks of ivory or jade ; they saw resemblances in natural forms, as we see faces in the fire, or clouds

[3] Milford, Oxford University Press, 1930, pp. 213 and 119 figs., 23*s*.

very like a whale. None of these matters prove a low grade of ability in other ways.

The debated status of the Solutrean work is frankly placed as an interlude in the Reindeer Age, between the Aurignacian and Magdalenian, and ' seems to have existed only in certain regions '. ' North of the Pyrenees the Capsians are known as Aurignacians, and were modified in time by the Solutrean and Magdalenian cultural influences'.

Some resources of the translator are very dubious. Graves are rendered as ' ditches ', ' costuming ' is used for costume, qualities of spirits are said to be ' lent ' instead of attributed, an abuse of a word is called ' abusive '. ' Crayons ' for amulets, and ' oligiste of iron ' are not within the range of English. This work is the best study of prehistoric mind as such, beyond the studies of the art already given us by Parkyn and Baldwin Brown, and it will long fill an honoured place in our resources for reference.

A very miscellaneous work is the last of six volumes on the history of Art, devoted to all the countries outside of Europe, *Die Aussereuropäische Kunst*, edited by Springer, and written by six specialists.[4] The divisions are China, Japan, and India, together occupying nearly one half, Islamic art nearly a third, and the remainder for Africa, America, Malay and Pacific art. The volume gives a useful general view of style, but only the Islamic section is sufficiently detailed for study and comparisons.

In the section on China there is not enough to trace the stages of rise and fall of different periods, but the main features are seen, as geometric design before 500 B.C. ; the Han period with abundance of figures, 200 B.C. to A.D. 200 ; the first Buddhist influence 2 B.C., and the full course of it A.D. 424 ; good figures about A.D. 450–600 ; the Sassanide symmetry of the 5th century ; and the landscape style beginning A.D. 1000. All through there is no trace of Siberian influence, and the principal outside style is the Perso-Assyrian of 600 B.C. which began the animal motives of the Han period.

Japanese work is later, more personal and expressive, and revelling in fantastic impressions of landscape and spirited animals. About A.D. 1300 was the finest age for naturalistic carving, closely parallel to the best European period of sculpture.

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[4] Leipzig, Alfred Kröner, 1929, 4to, pp. 751 and 812 text-figures and 16 colour plates, 40*s*.

India looked to the West rather than the East. The stone and rock cutting is all derived from wooden prototypes. A strong Persian and Greek influence appears in 250 B.C. One of the first purely Indian figures is a fan-bearer of about 200 B.C., with refined handling as in Greek work ; a similar female figure of A.D. 200 shows the rapid decline of delicacy, due to the Bactrian invasion of the beginning of our era, most plainly seen in the coarse figures of the conqueror Kanishka about A.D. 100.

A strong Roman style appears in reliquaries, the circular pyres with relief figures, from the 1st century onward. Another class of work is seen in the great stone imitations of wood carving, at about A.D. 150, familiar to us from Amravati, linked always with Buddhist motives, which henceforward are dominant. India regained independent style in the Gupta age, from Sandra Gupta A.D. 320, when the great fashion of rock-cut temples begins, with degradation in taste.

The strongest section here is that on Islamic art, covering many countries and due to many sources. An entirely new spirit enters the religious architecture with the congregational mosque. That is essentially a holy well in a court with an area of pillars around, copied apparently from a palm grove bordering the sacred place. The whole Mecca motive, and the mimbar pulpit, is an extraneous addition. When tombs, palaces, and forts were in demand, they were borrowed from Byzantine and Syrian architecture. The elaborate arabesques of Mshitta are like those of the ivory throne of Maximian at Ravenna, and derive from Syrian vine patterns of A.D. 100; together with Graeco-Oriental style of the Nikopol vase, and the tomb of Petosiris, about 300 B.C. The geometry of that palace is essentially Syrian, based on the hexagon.

Another strong influence later was the fulsome Spanish taste, which controlled Moorish work, and reflected on the East. Turning to the African side, the carving at Kairwan has no trace of African influence but is purely of Roman origin. The northern motive of the band of balls rules at Samarra, where also the influence of the north may be traced in the drapery (fig. 390) like that in Anglo-Saxon drawing.

In the mid-Islamic age, the Seljuks brought from Central Asia, about 1100, the fashion of tower-tombs, which continued for four centuries, and seemed to find a surprising reflex in Central America (fig. 720). The fashion of domes was later, and their Perso-Mongolian style seems obviously copied from the helmets of that age (taf. x).

On entering India, Islam brought its own motives, and there does not seem to be any trace of Indian feeling in the decoration of Delhi or Lahore. On the other hand, the conquest of Constantinople entirely dominated later architecture by the magnificent example of Hagia Sofia.

The African section begins with an astonishing piece of wood carving of animals and men in action, as complete figures in the round. It is in a purely naturalistic style and bears no resemblance to the stolid clumsiness of most African work, though from Camerun; it rather seems inspired by the style of the ancient figures in gold work which were offered as tribute from the Sudan to Haremheb. The principal foreign strain in Africa is the Roman work, which brought in the plait patterns of the North and passed them on to the Gold Coast. In only one instance a trace of Egypt may perhaps be seen, where two tall plumes on a head may come from the figure of Amen. The known links of custom between Egypt and Africa are not reflected in the art, and are probably due to Egypt inheriting a basis of African ideas, and not to later transmission in the reverse order. The bulk of African work is simply of native growth unaided by outside example. The recent centuries have brought European influence, beginning with that of Portuguese traders.

America is still a vast uncharted sea of endeavours, in which we wander far without any clear landmark of the Old World. The heavily stratified architecture of Southern India and Java seems to meet a parallel in Yucatan; the mood of Mexican figures seems most akin to early Chinese work; the Cross of Palenque may well have come from Syria by means of Nestorian missions. Yet we wait for any clear link to guarantee a direct transmission.

The fine masonry of Peru is amazing, as in the Sun temple of Cuzco, and Mexico shows bold design in simple masses in the great platforms of Teotihuacan. The vigorous, clear lines of the pottery from Cuzco is of the first class. The main run of Mexican figure work is however, obviously the product of a mechanical degradation of a former living art, the vital period of which has not yet been found. As a whole there is here—as in China—a great poverty of motives, and the resort for detail lay in profuse geometrical repetitions, as in Yucatan. We must await the classifying of styles, and the historical clues to the successive periods, before we can grasp the central meaning of the New World.

Lastly, the Polynesian section is occupied with native attempts, the only guidance of which came from India through the Malays.

The whole work is a useful conspectus of non-European art, and the bibliographies will lead the reader to fuller sources for study.

In all these volumes we feel that we are but groping among a complexity of detail, at such close quarters that we cannot grasp a unifying view, or see the meaning of changes or the underlying causes. We require some key to the principle of the series of changes. It is evident that a vast complexity of influences and motives besets the mind of man.

Now in all such cases of complex phenomena, the regular method of modern science lies in the search for the meaning, by noting the recurrences, or period, which may be traced, in order to throw light on the process and distinguish the causes. The obvious connexion of the tides with the moon is complicated by other elements, and elaborate record of variation, and analyses of recurrent causes, are needed for the exact prediction of tides. The relation of the monsoons to the solar year, the cycles of sun-spots and their connexion with weather, the longer cycles connected with planetary disturbances on the sun—all of these are studied almost entirely by observation of periods. So in social matters the trade cycles of prosperity and difficulty are a subject of deep anxiety at present, and need careful historical analysis of past causes ; the cycles of diseases are the special care of medical science, as in recurrence of small-pox or measles ; the cycles of animal pests, as locusts or voles, are being traced in order to deal with the causes effectually. So also must we study cycles to understand History.

An important social cycle, which has not yet attracted notice, is that of austerity and laxity, or economy and waste. Those who knew Victorian self-help, thrift, and decency, which built up England to vastly increased strength and prosperity, are now aghast at the lavish living at present, which is squandering the reputation and stability then acquired. The best defined epoch in this periodic change is the break-down into waste, and the reduction of resources. This may be stated at about 1920, when the enforced civilian economy during the war was released with a rush, and the military wastefulness of war invaded all civil life ; this was also the turning point of laxity of moral standards. Looking back we see a parallel period of change at about 1790, when the ideals of that century were crumbling, and the influence of the Revolution made a standard for an important party, and was carried forward after the death of Pitt into the excesses of the Regency.

A notorious age of laxity began at the Restoration in 1660. The earlier pages of Pepys detail the change of view, the literature became rank, the Puritan thrift vanished, and England fell under foreign influences. The previous age of squandering was at the suppression of the monasteries, scattering all the thrift of the country which had survived through the civil wars : probably 1530 or 1540 may be stated as the turning point. The change was overdue, as not a single endowment had been given to monachism in London for a century past.

The leaders who built up the thrift of the Nation are equally obvious. Queens Victoria and Anne (who led a moral crusade), the Puritans, and Henry VII.

The intervals of the periods of waste or laxity are

End of Great War ..	..	1920 —130
French Revolution ..	..	1790 —130
Restoration ..	.. ..	1660 —123
Dissolution of Monasteries		1537

If we seek to carry this view back the similar periods may be seen at

		1537 —119
Henry V, lavish Normandy war		1418 —111
Edward II, lavish reign	..	1307 —113
Richard I, heavy taxation	..	1194 —107
William II, lavish reign	..	1087

The economic state of the Saxon period is hardly known, and was interrupted by invasions, but on reaching firmer ground we again find lavish periods at regular intervals.

Vandal sack of Rome	..	445 —121
Building Constantinople	..	324 —138
Commodus lavish ..	..	186 —124
Nero lavish ..	..	62 —124
Caesar mob manager	..	— 63 —126
Plunder of Antiochus	..	—189 —119
Plunder of Etruria	..	—308

A lavish period is preceded by an economist who built up the thrift of the country—Diocletian, Antoninus, Augustus and Sulla. A recurring interval of this kind has long been known in popular phrase in Lancashire, 'It is three generations from clogs to clogs'.

The energy and self-denial which builds a fortune, is lost in the grandson, who falls back into the condition of three generations earlier.

Some readers will perhaps regard these changes as having been due to the personal influence of the type of rulers, and look on the monarchs as ruling the ideals of their age. But in each case it is plain that the tone of the general population was thoroughly the same as that of the ruler, and such rule would have been impossible had not the austerity or laxity of the ruler been supported by popular opinion. The age made the ruler possible, and each of them in turn became the popular figure head of the nation.

In contrast to this brief cycle of repeated changes of ideals within a single population, there is the long cycle of change produced by alterations of race, usually due to conquest and subsequent union of the races. This ' Great Year ' of a race is the most impressive spectacle of all history, when we view a great civilization rising to its summer and then fading away, until it has lost its vitality, and the people are only fit to be overridden by the invasion of a more virile stock. In most cases, however hard and cruel the change seems, yet a better product results from the union. The worst failure was that of the Mongol invasion in Asia, which founded no beneficial result. The Arab, overrunning the Mediterranean basin, at least organized a better civilization in Spain than any of that date in Europe. The blight which fell on other lands was due to Justinian's destruction of the Goths. Had that most capable people been allowed to redeem the decadence of the Roman Empire there would have not been any Arab conquest, and we should have been spared centuries of confusion across all Europe.

As has been shown twenty years ago, each ' Great Year ' of civilization blossoms in different flowers of ability in succession; the earliest to bloom is that of Sculpture and Architecture, as in 450 B.C. and A.D. 1240 ; next came Painting, then Literature, Music, Mechanics, theoretic Science, and lastly Wealth. When there is no survival of useful abilities, then the race is doomed, and only lives on its prestige and savings, until its wealth attracts a more vigorous people. *Mene*, *Tekel*, *Upharsin*, may be seen written on every full-blown civilization.

This series of changes throughout history—written most plainly in its Art—has been lately put on a firmer basis by fresh discoveries in Egyptian archaeology, which show how the northern invaders (XV and XVI dynasties) in the Delta were contemporary with the older

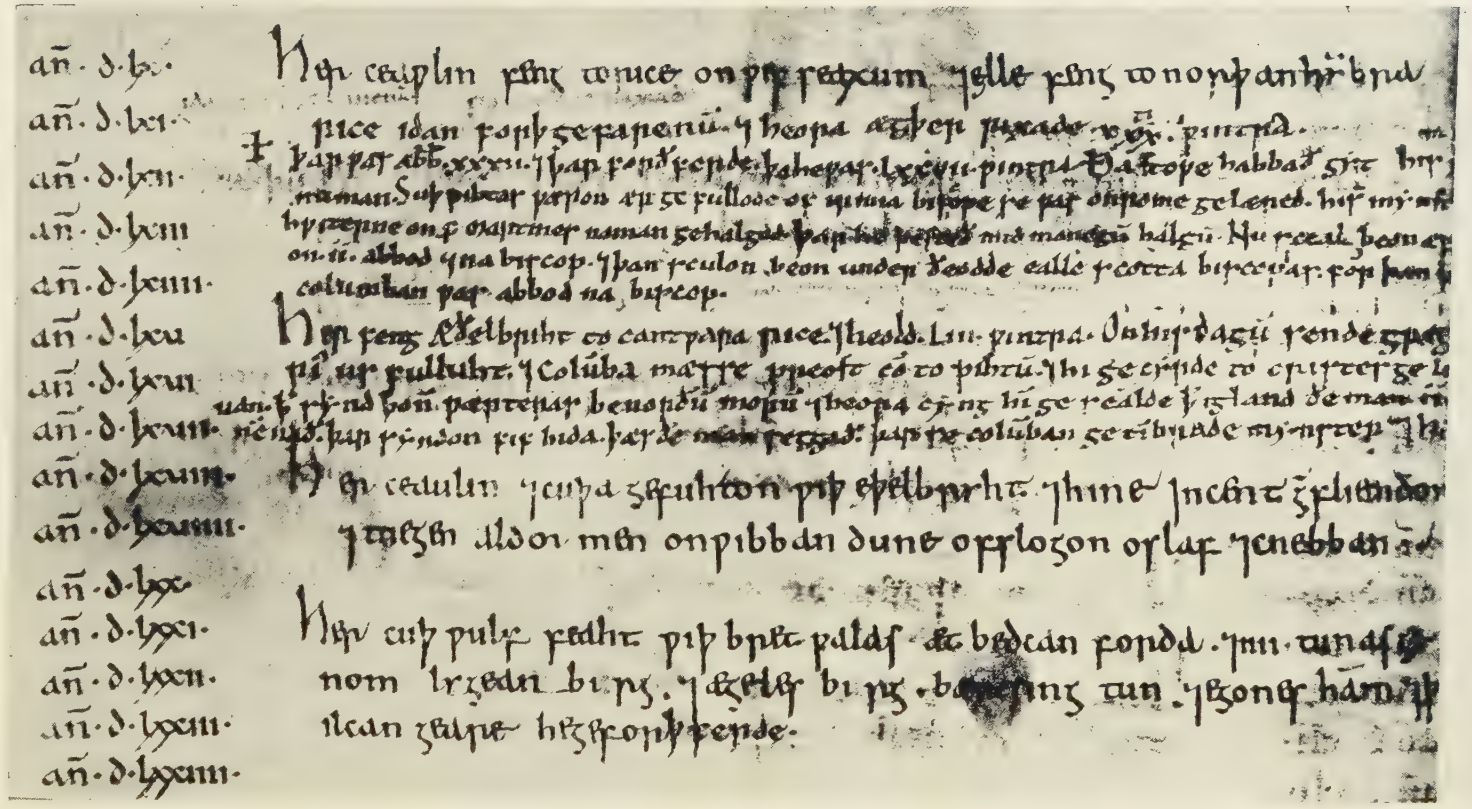
inhabitants in the south (XIII, XIV, XVII dynasties). The best preserved product of each cycle is the stone sculpture, and the most distinct epoch in that art is the end of archaism. This test point recurred at the dates of A.D. 1240, and 4300, 3750, 2550, 1550, 480 B.C. in Egypt. The usual period was 1100 years ; strangely enough this period was already formulated by the Etruscans and called by them the ' Great Year '. The latest interval, of 1720 years, was delayed by ejecting the Gothic mixture, and letting in a second barbaric movement of Lombards and Arabs. The succession of stages in these civilizations, stated in *Revolutions of Civilization*, need not be detailed here.

There is yet another, and greater, periodic change to be noted in the supremacy of a whole stock of mankind. In the early ages there were many different stocks, *sapiens*, *neanderthalensis*, *capensis*, to say nothing of the Javan or Chinese primitive. So in historic times there have been ethnocracies—as we may well call them—of dominant stocks. The Mongoloid Sumerian lasted supreme down to the rise of the Semites under Sargon and Naramsin. The Semitic races ruled the world until the rise of the Aryan stock in the Persian empire, the Ionian Greek, and the Swamp of Celts over Europe. The Aryan has thus led the way for over two thousand years, but doubtless his power will pass away as the other stocks have passed. The present affection of this stock for the barbaric art and jazz of lower races marks a loss of its own lineage of ideals, which must expose it to decay.

Each ethnocracy may last over several civilizations ; in the last group there were the Persian, the Graeco-Roman, and the Northern dominance ; in the Semitic group were the Amorite, Babylonian, Hebrew, and Assyrian leadership ; the Sumerian group we can already see in Iraq and India. If we can penetrate further we may find the Solutrean-Neolithic group long lasting, interrupted in the West by Magdalenian cold and barbarism. Other groups are gradually coming to light over large areas, and we should interpret the distant past as the general type of a series of ethnocracies, each containing three or four successive civilizations of cognate races.

Thus in all the organization of living endeavour we see the growth and decay of a single life amplified in the austerity fading into laxity in a few generations—in the growth and decay of each cycle of civilization and art—in the rise and decline of each of the great ethnic divisions of mankind—all resembling the still larger rise and fall of each of the great phyla of molluscs, fish, reptiles, mammals, and primates, which successively dominated the world.

In all this research on the nature of civilization, we best find History in Art. The higher products of ability and imagination which we rank as Art, constitute the closest test of mental advance, and the apparatus for discriminating the changes in civilization necessary for our study. The volumes noticed here give much of what is required for the Classical ages. For other civilizations and lands, the transference of designs of decorations, and the series of changes of each pattern, need to be widely collected. A beginning has been made of a classified series in *Decorative Patterns of the Ancient World*, and when the three thousand examples grow to many times more we shall have an effective means of searching for the movements in time and in position, of the ideals of Early Man.



PAGE OF THE 'ANGLO-SAXON CHRONICLE' RECORDING THE BATTLE OF BEDCANFORD, A.D. 571

From the MS. at Corpus Christi College, Cambridge, by permission

facing p. 291

Grimsditch and Cuthwulf's Expedition to the Chilterns in A.D. 571

by Michael W. Hughes

In its original form this paper was prefaced with an account, painfully extracted from the somewhat unsatisfactory descriptions in the Historical Monuments Commission's volumes for Herts and South Bucks and in the *Victoria County History*, of the existing portions of the earthwork with which I proposed to deal. For the South Oxfordshire Grimsditch, which I ventured to associate with the continuous work which runs through Herts and Bucks, I relied upon Plot[1] and Burn[2], and some of the original documents used by the latter.

As readers of Antiquity are already aware, the Editor, moved by the conviction that the earnest seeker after truth in this field at least deserved to be supplied with the facts, has during the past two years personally investigated the whole of the remaining fragments of earthworks in the district, and I am therefore able to refer to his paper in the June number, and to the map which he has compiled to illustrate this paper as well as his own, as furnishing a succinct and authoritative statement of the main features of the Chiltern Grimsditch, by which my arguments stand or fall.

Ever since I first began to interest myself in the Saxon settlement of Bucks, I have not ceased to hope that it might be possible to demonstrate that the Anglo-Saxon Chronicle was, so far as it went, veracious ; because I could see no limit of drift if this sheet-anchor dragged. So far back as March 1919 I wrote an account of the West Saxon invasion designed to show that there were no solid reasons for rejecting the Chronicle narrative. The late Mr W. H. Stevenson read the paper and expressed the opinion that it ought to

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[1] *Natural History of Oxfordshire*, 1677, pp. 316, 317.

[2] *History of Henley-on-Thames*, pp. 14–17. He cites Stukeley's and Horsley's references.

be printed; although, as he pointed out, its basis was almost wholly hypothetical. It never was printed; and I do not regret it; for while I have abandoned many of the views I then put forward, I am now, I think, in a position to support the remainder by reasoning rather than by hypothesis—to build up the case on the lines which would be necessary if it had to be proved in a court of law. At the same time, I admit that I have briefed myself on behalf of the Chronicle; and counsel for the other side may have potent arguments up his sleeve. However, it is encouraging to find that the Editors of the Place-Name Society's volumes, working on different lines and with different material, continue to reach conclusions which support the Chronicle.[3] But the Society has not dealt with Grimsditch. There is, indeed, little which they could have said of it, though they might have given the earliest date at which the name occurs; but it was not even mentioned, under that name, in the volume on Bucks.

I have been compelled to work almost entirely from the map; and for this purpose I have found the combination of the ½-inch layered and contoured Ordnance Survey map with the old 1-inch, to give the parish boundaries, very fruitful in suggestions.

The salient fact which emerges after prolonged contemplation of the map is that the Herts and Bucks Grimsditch throughout almost the whole of its course runs closely parallel to one great road or another; this is so marked that the conclusion that the association is more than casual is difficult to resist. A reference to the diagram will illustrate my meaning.

With regard to the South Oxfordshire Grimsditch, Mr Crawford has revised the Ordnance Survey maps upon which I had worked, and deprived me of some of my material. However, it remains true that so far as it is traceable this also seems to be associated with a road—the road from Wallingford to Henley. It is indisputably established by ancient deeds in the possession of the Corporation of Henley, many of which are quoted by Burn, that an earthwork known as Grimsditch was in existence as early as the late thirteenth century and as late as the late sixteenth, actually in the town of Henley. It lay to the west of Bell street, and if continued to the east would have

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[3] Place-Name Society, Bucks, p. xiii; Beds and Hunts, Introduction; Mawer, *Problems of Place-Name Study*, 1929.

run down New street.[4] It is said[5] to have continued on the Berkshire bank, but I cannot say what evidence there was for this.

The attachment of Grimsditch for the roads is not mere idle sentiment ; nor is Grimsditch part of the road system. For it cuts across the Icknield Way, for example, on the Mongewell–Newnham Murren boundary. So that it is part of a system, or, shall I say, the evidence of a policy, based on something other than the roads, to which however the roads for part of their course were of value. It would thus be later than the roads, which are part of a general system based on the natural features of the country.

I propose to assume, as I think I safely may, that the earthwork which runs from Berkhampstead to West Wycombe is a homogeneous whole. I do not claim for the Wallingford–Henley work more than that it may be part of the same scheme, and I do not know that this suggestion can ever be definitely proved or disproved, unless the spade decides, or a very careful study of the workmanship and construction of these dykes makes it possible to conjecture with some degree of certainty that the same brain devised the different sections.

It must be further assumed that Grimsditch was conceived and carried out from the Aylesbury side of the Chilterns ; because the work faces away from Aylesbury.

It is not a rampart hastily thrown up in battle, nor indeed is it likely that it was constructed during the course of a campaign. It is too long for defence, but not too long for a boundary which might be patrolled. If it is a boundary—and that it must be, whatever else it may be in addition—it represents the attainment of an ambition ; a final achievement, designed to be permanent ; and it is evidence that its makers were conquerors, for the fat valley lands are within it, and the hilly wastes without.

Again, it is to be predicated that Grimsditch was thrown up in open, or at least cleared, country. No one sites a rampart boundary in a wood. But trees grow naturally on ancient earthworks, as for

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[4] Burn, *op. cit.*, p. 14 ; *e.g.*, Bouedone to Walenger, *c.* 1300 ; *totam terram meam extra cortillagium meum que iacet inter terram quam Alanus Belami quondam tenuit ex una parte et terram quam Gunnilda Chaloner quondam tenuit ex altera extendentem a dicto cortillagio . . . usque ad Grimesdig' . . . ;* Colchestyr to Deuyn and others, 1449 ; *quandam parcellam terre arabilis que iacet in le Chyrchecroft inter terram Johannis atte Lee Smyth ex parte boriali et Grimysdich' ex parte australi . . . .* See also *Catalogue of Ancient Deeds*, VI, C. 4609, 6588, 7129.

[5] Plot, *op. cit.*, p. 317.

instance upon barrows, because they are left untroubled by the plough. The woods, therefore, which are now to be found on and about parts of Grimsditch were not there when it was completed. It has been the traditional belief that the Chilterns were largely waste and uncultivated, and thickly covered with trees ; I think their wildness and inaccessibility have been much exaggerated, but it is certain from the place-names ending in *leah*[6] that in Saxon times this was a district which required clearance before it could be cultivated ; and it is demonstrable from Domesday that the vills beyond Grimsditch were far less productive than those in the Vale, since their hidage is very noticeably lower in comparison with their acreage. Yet it is far more likely that the district resembled the New Forest than that it was covered by continuous woods, and there is no convincing proof that the Bucks Chilterns were an unexplored wilderness in Roman times ; there is indeed proof to the contrary.[7]

I now come to what I cannot but regard as a very significant fact. The name Grimsditch tells us nothing more than that at an early date a supernatural origin had been assigned to the rampart. There is no evidence, so far as I know, that the name was applied to the Bucks work in pre-Conquest times. There is evidence that it was so used in Warwickshire.[8] I know, however, of no pre-Conquest references to the Bucks Grimsditch under that name.[8*]

But I have found the section which divides Great Missenden from Wendover described in the Missenden Cartulary as Fastendich, in a list of boundaries scribbled on a blank folio at the end of the

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[6] The fact that *leah* often meant a wood rather than a clearing in it has recently been emphasized by Professor Ekwall, *Bull. de la Soc. roy. des Lettres de Lund*, 1930–31, pp. 95–100.—Ed.

[7] V.C.H. Bucks, II, 4.

[8] Birch, *Cart Sax.*, 934; cited in Place-Name Society, Worcestershire, p. 126.

[8*] I have found in the Missenden Cartulary (f. xxxvi (50d)) the following grant; it is dated by one of the witnesses as between 1170 and 1179 and is identified by other documents as relating to land in Great Hampden ;—Alexander son of Richard de Colewurda confirms to the Abbey the grant which his father and mother made of one virgate of land nearest their land of Hanora. And he makes in addition a grant of a certain increment adjoining the said land out of his demesne with 4 acres which he gave them in exchange for 4 acres which he retained. . . . And the increment and the 4 acres and the virgate are bounded by *fossatum eorum quod extendit per Waltringden et signa lapidum quorum unus est positus in Waltringdene & alius contra illum positus est ultra Hoacmer super Grimesdic ita quod haia eorum est posita super crestam fossati.* Hoacmer may survive in Oakengrove. Hanora is Honorend.

volume,[9] at a later date than the main body of the Cartulary, which was compiled in 1340. This name also occurs[10] as the personal name of two *nativi* of Henry de Scaccario in Wendover in or about the early thirteenth century.

Again, it appears as the name of a tract of land in Bucks in 1197[11]; and this tract is identified as being in West Wycombe by an agreement recorded on an Assize Roll of 1241.[12] Other references, showing the name in use in 1269 and 1477, are given in the Place-Name Society's volume on Bucks,[13] where the name is translated ' stronghold

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[9] Harl. MS. 3688, at end. *Incipiendo apud Fastyngdich ubi furce sunt eundo Huntesgrene & ab Huntesgrene usque ad domum Johannis Astwik nunc Johannis Bassingborne & sic ad domum* (sic) *Johannis Astwik usque le Gore Et ab le Gore usque ad grauam Ade Ladde & sic a Graua Ade Ladde usque ad portam Thome de Wedon Et a porta Thome de Wedon usque ad Chiveraylane Et a Chiveraylane usque Hoggemede apud Sowthforde Et sic rediendo ad Sykmanstile & a Sykmanstile usque Grymesdene & a Grymesdene usque le thorne & a le thorne usque le Sandehegge & ab Sandehegge usque Deneshegge Et redeundo usque Honor Hacche & ab Honor Hacche usque Pedderesfeld & sic descendendo uenellam usque Grenemyle & Fastyngdich.* At present I can identify only Hunt's Green, but I think these places will be found to run from Grimsditch and Hunt's Green in a circle round Great Missenden. The Wedon family lived at Weedonhill in the SW corner of Chesham. Honor Hatch may be somewhere near Honorend Farm in Hampden, land near which was given to the Abbey about 1175. 'Grenemyle' was, I have some reason to think, in Wendover. The part of Martinsend Lane nearest Missenden Station is now known as Grim's Hill; but I do not know when or why the name was given. There was a Hugh Grim holding land in that neighbourhood in the thirteenth century, and the dene may take its name from him: and he may also be commemorated in the hill. [The same expression was used to describe the Froxfield entrenchments in South Hants; see Dr Grundy in *Arch. Journ.* LXXXIII, 96.—ED.].

[10] Harl. MS. 3688, f. LI (62) . . . *omnes terras quas Walterus de Fastendich et Willelmus de Fastendich de me tenuerunt in uilla de Wendouere* . . . . On the same folio Will. de Festindich quitclaims to Missenden Abbey, to whom Henry's grant was made, . . . *totam terram quam tenui de Abbate et conuentu de Messendene in uilla de Wendouere ex dono Henrici de Scaccario.* This is the Chequers family from which the Prime Minister's country house took its name.

[11] P.R.O., Feet of Fines, Bucks. Case 14/1. 33. This fine was made between Will. de Widendon and Walt. de Fastindig', and concerned a half virgate of land in Fastindig'.

[12] P.R.O., Ass. Roll 55, m. 9. *Will. de Wydendon' cognovit quod dedit concessit etc. Ricardo filio Mathei de Smalenden' totam terram de Festindich* . . . . *Quam terram Rikilda de Festindich tenuit in uilla de West Wicumb'.*

[13] p. 207. These references are as follows:—1269, July 22, Westm. Grant to Henry de Norwico, king's serjeant and his heirs, of free warren in his demesne lands in Lavenden, Baunfeld, Fastendich, and West Wicumbe, co. Bucks. Cal. Charter Rolls, II, 123. 1476–7, Walter Bonham's estates include a tenement in Fastyngdiches and land in Westwicumb, Bucks. 1479–80, Estates of John Leynham, kt.; as those of Walter Bonham. Rec. Comm., Inq. Post Mortem, IV, 380, 397.

ditch '. The Editor of ANTIQUITY suggests that ' strong ditch ' would give the sense more faithfully ; or, better still, ' The Rampart ', or ' The Dyke '.†

There have in the past been writers—and their descendants are not yet extinct—who interpreted the Saxon nomenclature in the case of such names as Coldharbour in a sense which carried with it the irrebuttable presumption that the Saxon invaders, on reaching a hill, a building, or an earthwork, called a halt, and sent for the Staff Antiquary. When he had duly examined the object and reported upon it in triplicate, stating whether or no it was Roman, and whether, if so, it had been used as an observation point for laying out roads, or as a temporary shelter for a party of soldiers, the Divisional Cartographer gave it the appropriate name, and the war was resumed.

Travelling in imagination with the invading Saxons I cannot help seeing the matter rather differently. I can see that they would naturally use the roads their predecessors had made ; that if a hill suited one invader for a lookout post, it might suit another for the same purpose ; that a party of Saxons might find a disused Roman shelter convenient ; so that Saxon use and name might perpetuate Roman use, a possibility which the archaeologist ought not to overlook. But I feel strongly that the Saxons were not archaeologists ; and that if they gave to a place a name signifying its purpose, the name is a pretty clear proof of the use to which they themselves put it, and of nothing else. I do not of course forget that when they saw a place which looked to them like a *burh* or a *ceaster*, they often so named it, irrespective of their own use. But these are topographical words, describing the character, and not the purpose of the object.

I believe therefore that they called their rampart the ' strong ditch ', not because they thought that some forgotten race had so designed it, but because they themselves made it to mark the line over which no man might pass unless at his peril.

There is nothing in the known history of pre-Saxon Britain to account for its construction ; a fact which of course is not conclusive. There is nothing to show that it was thrown up against the invading

† There is a suggestive collection of instances of the use of the word *faesten* in later Anglo-Saxon times in Lees, *Alfred the Great* (Putnams, 1915 ; or in the *Heroes of the Nations* series), pp. 238 *sqq.*, from which it appears that Alfred used it as the equivalent of the Latin *arx* ; and that this was so far from being a merely literary translation that the expressions *faestengeweorc* and *burhbot* seem to have been used indiscriminately to denote the duty of building forts.

Saxons, and much to suggest that it was not. Lastly, the chronicles do not indicate any such resistance to the Danes in this district as a work of such magnitude would suggest. It will perhaps begin to be clear that I am claiming the Bucks Grimsditch as the work of the Saxon settlers of the present county; and I believe I have already done something to show that the claim is not unreasonable.

I propose now to deal with what we know of the history of the invasion, with such comments as will at least give the reasons why I have arrived at my conclusions.

The whole of the written history of the subject is contained in the paragraph in the *Anglo-Saxon Chronicle* under the year 571. It is so well-known that I am almost ashamed to quote it. However, let me repeat once more that in that year Cuthwulf fought against the Britons at Bedcanford, and took four towns, Lygeanburh, Aegelesburh, Baenesingtun, and Egonesham; and the same year he died. Cutha was Ceawlin's brother.

I do not think it is in the least necessary to read into the scribe's remarks any reference to a previous settlement, during the course of which the places mentioned got their names. The scribe gave them the names by which they were known to him. If he had used the native names, he would have had to explain them. And he probably did not know the native names.

Mr E. T. Leeds however holds[14] that there was a previous settlement ; or rather that the date given in the Chronicle is at least a hundred years too late ; that the statement that Cuthwulf was brother of Ceawlin is an invention of the chronicler ; and that the Cuthwulf of the invasion was another man of the same name. I cannot help thinking that it would be more logical to throw over the whole entry, name and all, as spurious.

Mr Leeds knows more about Anglo-Saxon archaeology than I know of any subject ; and I hope he will not take it amiss if I try to show how his evidence appears to a layman. Because, if Mr Leeds is right, I am wrong.

First, let me say generally that in my opinion great caution is needed with the arguments *a silentio* of which the archaeologists make frequent use. In the centuries which have elapsed since the Saxons came, the plough, the spade, burrowing animals and the chemistry of nature, and official and unofficial searchers have had innumerable

[14] The West Saxon Invasion and the Icknield Way. *History* (July 1925), x, 38, p. 97.

opportunities of removing the relics of the past. It is probable also that in many cases continuous occupation has covered Celt or Saxon under the deposits of later times. Possibly pagan cemeteries lie beneath Christian churchyards.[15] In any case no one suggests that the known pagan cemeteries contain the remains of the whole of the Saxon population.

So that while we must treat the archaeologist with respect when he speaks positively as to date and race, we may be permitted to postpone our submission if his assertion is merely that where there are no discoverable relics there were no settlers.

Mr Leeds, in the article already referred to, accepts the order in which Cuthwulf's conquests are given in the Chronicle as correctly indicating the line of march. He also agrees that the invaders were Saxons. He holds that Bedcanford is Bedford, a view which has now been generally abandoned.[16] He believes that the dates of the archaeological finds in the district make it impossible that the settlement could have been the offshoot of a sixth century invasion starting from the Hampshire coast ; and assumes therefore that Cuthwulf came down the Icknield Way from the Wash in the late fifth century, and had nothing at all to do with Wessex or Ceawlin.

Now let us glance at his evidence. Putting his case shortly, he relies on the similarity in date and design between the finds at Kempston and those at Frilford. Kempston again has affinities with the Sutton Courtenay finds ; and all three seem to be akin to other finds in Cambridgeshire. He adduces also late fifth or early sixth century discoveries at Frilford and East Shefford.[17] He dismisses the finds at Dorchester, which are generally regarded as exceptionally early, as a thing apart. It is tempting to do likewise ; but I cannot feel that any theory is safe while these remain unexplained.

So far then we have, if we may accept the archaeologists' dates, evidence that in the late fifth or early sixth century Saxons had reached Kempston in Beds and Frilford in Berks.

What of the intervening area—the area which Cuthwulf is said to have conquered in 571 ? Let me quote Mr Leeds.[18] ' The line

[15] At Taplow the famous barrow, which is said to date from about 620 to 630, is in the old churchyard.

[16] Place-Name Society, Beds and Hunts, p. 11.

[17] *History*, l.c., p. 101. Oddly enough, on p. 103, he calls Frilford an early West-Saxon cemetery, which seems inconsistent with his main thesis.

[18] *History*, l.c., p. 103.

of Saxon settlements along the line of the Icknield Way in Cambridgeshire and Bedfordshire already mentioned is continued in Bucks and Oxon. In Bucks cemeteries have been found at Wing, Mentmore, Oving, and in a group southwest of Aylesbury, including Stone, Bishopstone, and Kingsey. These in turn lead to the Thames at Ewelme, Benson, and Dorchester. *Not all these cemeteries can be proved to be early, though certain finds, as at Leagrave, Beds, and at Bishopstone, Bucks, have been interpreted as such*'. Translated into plain English, the words which I have italicised mean that none of these cemeteries can be proved to be early. The British Museum authorities[19] give 550–650 for the Stone and Ewelme finds. Mr Leeds goes on to consider the evidence of cremation, but does not regard it as proving conclusively either date or race.

If then we accept the archaeologists' dating of the finds, it appears that they have proved late fifth or early sixth century settlements south of the Thames, west of Dorchester ; and in the neighbourhood of Bedford ; but nowhere between Kempston and Frilford. Thus Mr Leeds has to admit tacitly that the Bucks finds do not displace the Chronicle story, and the British Museum dates actually corroborate the Chronicle ; and we are reduced to the conclusion that after the Saxons had occupied Kempston in 471 they went on to Aylesbury in 571, and finally reached Frilford in 471, possibly with the aid of Mr H. G. Wells' time machine.

But since Mr Leeds expressed the opinions to which I have referred, a cemetery has been excavated at Luton, which Mr William Austin assigns to the early sixth century.[20] In his introduction to the description of the finds, he identifies Lygeanburh as Luton, and suggests that there may have been a West-Saxon invasion about fifty years before the date given in the Chronicle. His use of the term West-Saxon presumably implies that he accepts the Chronicle story that Cuthwulf came from south of the Thames.

Many of the articles found, notably those adorned with garnets, definitely belong to the late sixth century ; but one of the brooches illustrated certainly appears to resemble the early Kempston brooch, which is generally regarded as of a distinctly primitive type.

Luton is sufficiently near to Limbury to make it impossible to disregard this find. It is unfortunate that the account does not state

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[19] *Guide to Anglo-Saxon Antiquities*, pp. 35, 78.

[20] *Antiquaries Journal*, VIII, 176.

whether the brooch was found alone or with other objects ; but this, I gather, is not the fault of the authors.

The fact of the discovery of this brooch led me to enquire a little more closely into the archaeologists' method of dating these early jewels ; and I am now, as a result, doubtful whether they have completely proved their case. They work, quite logically, by comparing the English finds with objects found abroad in circumstances which make it possible to date the deposit ; and by selecting from the objects found in England a succession of types, of which they take the most primitive as the most ancient. I do not quarrel with this method. I cannot suggest a better. But they have defined their periods so rigidly that the method has, as it seems to me, ceased to be their servant, and has become their master.

Let us look at the facts ; and for this purpose I am unrepentant enough to treat as facts the dates given by the Anglo-Saxon Chronicle.

The date of the invasion of Kent may be taken as about 450 ; of Sussex, as 477 ; and in both cases, the settlement of the newcomers was a long and laborious process.

Cerdic lands with a few ships in 495, and his followers in 501 and 514 ; the invasion of East Anglia is not dated.

The first interments in these areas could obviously not have taken place before the landing ; and the manufacture of ornaments must be later still.

Therefore, if objects are found in Kent which can definitely be dated as having been made before 450, they must have been brought from the Continent. In the sphere occupied by Cerdic and his successors, all objects of a date prior to 500 must be imported.

And even accepting Mr Leeds' statement that it was not the custom to bury heirlooms with the dead[21]—which in effect means, I take it, that the dead man took with him to the grave the ornaments he had worn in life—there might be an interval of as much as fifty years between the date of manufacture and the date of interment ; so that though an object is found in Cerdic's sphere, it may yet have been made as early as 450.

We should not, I think, expect to find in any district any English-made ornaments for some years after the first invasion. There must have been professional makers of these articles ; and it is hardly likely that the first long ships carried any unnecessary passengers.

[21] *Archaeology of the Anglo-Saxon Settlements*, p. 62.

It is possible that from the first the adventurers brought their wives ; otherwise they would have taken native wives, and the women's language would have made inroads on the language of the conquerors. But there is, I suggest, no evidence that in the early days of the settlement any jewellery was made in England, or that if it was it kept pace in its development with the artistic progress of the Continent.

When manufacture began, craftsmen might be brought over ; or the craft might begin anew, in which case the old patterns would be copied, and for a time persist. Or Romano-British workmen might be employed. There are many possible sources of confusion in type.

It appears to me, even supposing that I have put these difficulties too high, that they are sufficient to throw very grave doubt upon any rule of thumb method of dating ; indeed, the method defeats itself ; because if we accept it, with the conclusions which Mr Leeds bases upon it, we are faced by the odd fact that, in Mid Bucks at least, after a certain time, say 535, the settlers ceased to bury their dead, and did not resume the practice until Christianity came a hundred years later. Alternatively, there were no Saxons in Bucks between, say, 535 and 635 ; and this will hardly do ; for Mr Leeds admits that Christianity spread over the district in the seventh century ; and this postulates that there was someone there to be converted.

Again, Mr Leeds' theory, involving as it does battles and widespread conquests, seems to me to imply that the Saxons were coming over in incredibly large numbers at that early date. How many families—nay, how many men—could a long ship carry ? This aspect of the question has to be considered in any review of the period. How did they live ? Did they bring plough-teams as well as jewellers ? Where are the bones of this mighty host ? Where are their shields, their swords, and their ornaments ? Where are the fields where these regiments fought and fell ? And how comes it that the conquest took so many weary years ?

The moderation of the Chronicle story is its own defence, and its probability is its corroboration. In Kent indeed it suggests an invasion in considerable numbers, resisted with determination. Cerdic, however, comes over with a few ships only. There is no saga-like glorification of his invincible prowess. There is no hint of any plan or scheme of conquest ; no attempt to unify the story. We hear only of isolated landings by a few pioneers. Then comes a long period of gradual growth in numbers, both by natural increase

of population, and by repeated relays of newcomers ; circumstances which afford a motive for fresh conquests.

The conclusions of the Place-Name Society with regard to this region appear to be favourable to the Anglo-Saxon Chronicle.[22] They do not identify Bedcanford ; they place Lygeanburh at Limbury; they believe that the invasion of 571 covered south and central Bucks only ; and find, in support of this, Anglian place-names in the north of the county, West-Saxon in the centre and south ; and they find the forms of the latter characteristic of the sixth and seventh centuries.

In these circumstances, I do not hesitate to say that Mr Leeds has failed in his attempt to discredit the Chronicle story.

Let us now imagine ourselves with Cuthwulf, brother of Ceawlin, at Limbury in 571. How he came to Limbury is a problem which I must not shirk ; but will hold over in the hope of getting an insight into his objects and methods.

Cuthwulf was, I think, at the head, not of an expeditionary force, but of a not too unwieldy horde of families with their belongings, seeking land. Such a body must travel along a road, and the Icknield Way is the route by which individuals or armies going south from Limbury would naturally move. Whether Cuthwulf had any previous acquaintance with the country does not greatly matter ; it unrolls itself as you approach and pass through it along the hillside.

The Chronicle narrative suggests what might have been conjectured without it, namely that Cuthwulf set out with the deliberate intention of seeking the low-lying lands. In short, he was looking for a river.

At Limbury he had defeated the Britons, whom he had already encountered at Bedcanford. Probably neither force consisted of what might be called professional soldiers : and there would not be many hundreds—perhaps not many score—engaged. In the opinion of the Place-Name Society, Bedfordshire was not settled before Cuthwulf's invasion;[23] and it may be suggested that his choice of a southerly route is some slight additional confirmation of the statement that he came from Wessex. Otherwise, he might have moved into the Ouse valley.

Having chosen his route, he comes, where Akeman Street and

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[22] Mawer, *Problems of Place-Name Study* ; Place-Name Society, Bucks, Introduction, p. xiii ; Beds and Hunts, Introduction.

[23] Beds and Hunts, p. xiv.

the Icknield Way coincide, in sight of Aylesbury and of its fair and watered vale. Beyond Aylesbury is a river, now the Thame. Aylesbury is not in the hills, but an outlier ; and he takes it, and with it the district which it commands. Beyond the river are the hills where Waddesdon and the Winchendons now stand, with Crendon and Brill away further off. His folk settle thickly between the Icknield Way and the river, which in after years formed the north-western boundary of the Hundreds of Aylesbury and Stone. The villages which may represent the original settlements all lie, with one or two apparent exceptions, to which I will return, either between the Thame and the Icknield Way, or on the Way itself, and not beyond it.

Cuthwulf has cowed his opponents, and he wastes no time in hunting them out of their hill retreats ; there will be time enough for that, if he cannot find land in the vales. Land there is of the right sort ahead of him, and he presses on between the hills, and comes by Icknield down to Benson. Now when Domesday was compiled Benson had long been what we understand by a royal manor of ancient demesne stretching right down to the Thames between Fawley and modern Henley, and containing within it the road. The tendency was to decrease these royal domains by grants to subjects rather than to increase them ; and this natural process which we can see in operation in later times must have been in existence from the first. Therefore, I think, we may assume that Benson in the Chronicle means what the chronicler meant by Benson, that is to say, at least what Domesday meant by Benson, and possibly a larger area, an interpretation which I should also apply to Aylesbury and Eynsham. If so, the entry in the Chronicle as to Benson would imply that Cuthwulf when he took it secured also the whole of the Wallingford–Henley road, and the fords at each end of it ; a suggestion which affords material for interesting speculations.

Holding Benson, Cuthwulf may travel to Eynsham by either bank of Thames. By crossing the river, he would divide his forces; and I suggest therefore that he probably chose the north bank.[24] Reaching Eynsham, he comes in sight of hilly country again ; and in

[24] Mr Leeds characteristically says (The West Saxon Invasion, *ut supra*, p. 105, footnote) :—' It is assumed that Swinford was captured from the Berkshire shore after the first crossing of the Thames had been effected lower down '. Rejecting his historical assumptions and accepting his archaeological evidence as to the early date of the finds at Frilford, Sutton Courtenay, Long Wittenham, and East Shefford, it would seem that in 571 the Berkshire shore had long been occupied.

any case, his people must now get to the plough-tail. A horde of families cannot live on the country indefinitely. In fact, it is a little difficult to understand how they lived at all, unless they began their march when the barns of the invaded were still full. But the same need summons the Briton to lay aside his sword and sow such lands as are left him. It is not likely that either party can send elsewhere for supplies. So nature calls a truce.

This view is implied in the Chronicle, which suggests that the campaign was begun and finished in a year.

The situation then becomes ripe for a political settlement. If the districts indicated in the Chronicle were indeed the first settled homes of the Cilternsaetna, it appears that they lay within an area of which the outer limit ran outside but roughly parallel with certain vital roads.

Check this statement by the map, and it will be obvious that Grimsditch is exactly fitted to be the eastern boundary line of the territory settled in the operations attributed to Cuthwulf by the Chronicle.* It is almost certainly a Saxon work; and we know of no other period of pre-Conquest history which so aptly accounts for its construction.

It is the case that the land through which run road and rampart is almost all, even so late as Domesday, identifiable as what we know as *Terra Regis*. In the first days we may call it, anachronistically, War Department land. Perhaps its tenants furnished patrols.

In speaking of *Terra Regis*, I am allowing myself to include lands which appear in Domesday as church lands, which, it is reasonable to assume, may have been retained in the royal hand until they were so given ; to conjecture that Aylesbury was once a royal possession of greater extent than it was in 1086—a conjecture founded on its Domesday hidage ; to allow for some grants out of Benson, for which there is evidence ; and to assume that Harold's Risborough was granted him by the king. My proofs are not complete and watertight ; but I think they are sufficient to justify consideration. It is not inapposite to observe that other hilly districts, such as Brill, were also King's Land. Formerly they sheltered enemies ; later, they furnished hunting of another kind. I may further recall the fact that the Place-Name Society think that there are indications that the native

* Where there is a pass through the hills, Grimsditch juts out into a salient to cover it.

lingered at Brill and on the Chiltern plateau after he had been driven from the vale.[25]

Thus the home of the people is in the valley among the arable land ; the hills are held just so far as they are needed to keep control of the roads and fords, and no further.

The lay-out of some of the Bucks Hundreds seems to me to afford some confirmation of the view that Cuthwulf's entry was made by the Icknield Way, and that Grimsditch was a boundary between his followers and their enemies in the hills. To give in detail my proofs of the propositions which I am about to make would lengthen this paper unreasonably ; and for the moment I must ask acceptance for my assertions.

If Cuthwulf's expedition is historical, Aylesbury is the nucleus round which Bucks grew up, and the three Hundreds of Aylesbury, Stone, and Risborough represent the original settlement.[26] But, presumably before the shires and hundreds were marked out, the district centred on Aylesbury had thrown out little colonies into the land beyond Grimsditch. It is clear from its feudal history that The Lee, which is outside Grimsditch, was part of Weston Turville,[27] and must be sought in that vill in Domesday, though Wendover lies between them. Great Missenden falls into Aylesbury Hundred—or sometimes into Stone. This was probably a colony from Marsworth[28] in Yardley (Erlai) Hundred, across the Tring peninsula. It travelled perhaps by way of that peninsula, founding Miswell[29] in Tring, *en route*. Having arrived, it falls into association with Aylesbury, because there are at the time no settlements east or south of it. The Hampdens[30]—so named, I suggest, from the curved dene under a spur of

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[25] Place-Name Society, Bucks, p. xiv, p. xii note.

[26] Maps of Bucks showing the Domesday Hundreds may be found in Place-Name Society, Bucks; in V.C.H. Bucks, vol. i; or in Fowler, 'Pipe Rolls of Richard i for Bucks and Beds', *Beds Hist. Rec. Soc.*, 1923, vol. vii.

[27] Harl. ms. 3688, f. xlviib (58).

[28] Place-Name Society, Bucks, p. 153.

[29] V.C.H. Herts, i, 318b, 324b.

[30] The V.C.H. editors are mistaken in identifying the Domesday Book Ha'dena as Great *and* Little Hampden. The two Hampdens are feudally independent with quite separate histories. I have no doubt that the D.B. Wandene is Little Hampden, w having been substituted for h by association with Wendover, which name follows in the text. It afterwards appears as a chapelry of Hartwell. Added to Ellesborough it makes up the latter's 30 hides.

the Chilterns in which they lie[31]—are extensions into the area beyond Grimsditch of the territory behind it ; and so they too fall into Aylesbury Hundred.

These indications, trifling though they are, may, I think, be the visible evidence of the expansion in very early times of the original settlement ; the pact represented by Grimsditch is at an end ; the natives are no longer to be feared. For it is not the *Terra Regis* which extends itself. Beyond Grimsditch, the new holdings exhibit the character of tentative encroachments by individuals, rather than of an ordered and general annexation by a people under its leader.

A similar phenomenon is observable in South Bucks. The Place-Name Society suggests[32] that this area was mainly settled from the south or southeast, possibly before the settlement of the Vale of Aylesbury : and puts forward in support of this theory evidence which tends to show a movement spreading from Harlington in Middlesex to Hitcham, Hedgerley, and Hughenden. And, as The Lee was thrown off from Weston Turville, so in South Bucks we find Penn to be a detached part of Taplow, with another vill intervening, while Beaconsfield is similarly part of Burnham. The churches of Penn and Beaconsfield begin life as chapels of Taplow and Burnham. The parent must be nearer the base than the child ; and the inference as to the direction from which the movement originated is difficult to resist.

The encroachments inwards from both sides suggest a prior permanent settlement with limits believed to be fixed. The permanence is of course only in the mind of the man of the period. He provides for eternity, and his eternity lasts ten years or twenty or fifty. He is really dealing with present needs and not with the future at all. Grimsditch must have become unnecessary in a very few years.

And this consideration brings me back to the question of the course which Grimsditch followed from West Wycombe. At that point we have the first arm of a salient, and I feel little doubt that the rampart was intended to return inwards and then strike more or less directly for some point on the Thames, covering the ford at Henley. Possibly it was never completed ; for, apart from some place-names

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[31] Professor Mawer will not have this ; but cf. Place-Name Society, Bucks, p. 177 (Hambleden); Worcs, p. 44 (Hamcastle). At the same time I should be better satisfied if Professor Mawer agreed.

[32] Bucks, pp. xiv, xv.

which may or may not refer to it, no trace of it can now be found ; or at least, nothing which will satisfy the demands of the Editor.

With regard to the South Oxfordshire Grimsditch, I think there is something to be said for the view that this too is part of Cuthwulf's plan for securing the road and the fords over the Thames; if not, the reason may simply be that he had nothing to fear from the south of the road. But if by Benson the Chronicle does mean what Domesday meant by Benson, the South Oxon dyke would stand to it in precisely the same relation geographically as that occupied by the Bucks Grimsditch in regard to the other conquered territory.

And now we must turn to the difficult and dangerous problem of Cuthwulf's approach to Limbury.

His expedition was quite clearly a result of the events set down in the Chronicle under the year 568. Professor Mawer has declared for this connected view of the entries in the Chronicle in his *Problems of Place-Name Study*. In 568 Ceawlin and Cuthwulf had fought against Ethelbert, king of Kent—a boy at the time—and driven him into Kent, and killed two ealdormen at Wibbandune ; it is not stated that they were Kentish ealdormen ; nor is Wibbandune given by the Chronicle as the site of the battle or battles against Kent. Professor Mawer says that Wibbandune is not Wimbledon ;* but I do not think he has identified the place. It does not greatly matter ; the sequence of events indicates that it cannot have been far from Kentish territory ; it may be that Ceawlin, checked in his advance westward, was seeking an outlet for his surplus people by moving east—or possibly some contest may have arisen as to the control of the territory between Ceawlin's sphere of influence and that of Ethelbert.

Whatever the cause of the movement, the event finds Ceawlin, in 568, south of the Thames, travelling towards Kent. What possible reason was there why the victorious West-Saxon should not at his leisure explore the banks of the Thames to find a crossing ?

I think it is quite clear from the ingenuous narrative of the Chronicle—ingenuous, because it is not used to support any special political doctrine—that in spite of the success at Old Sarum in 552 Ceawlin had not made much progress subsequently ; that for some reason he found it necessary to move eastward in 568 ; and that it was not until nine years later that he was able to make good his western

* *History* (April 1926), XI, 41, p. 83.

advance by his victory at Deorham. From 552 to 577 no progress to report ; and the only intervening event with any possible relevance Cuthwulf's conquest in 571.

Is it not possible to hold that Cuthwulf's success made Ceawlin's advance practicable, without attributing to either the foresight to see that it would do so ?

Cuthwulf therefore must have begun his march by crossing the Thames. I have carefully considered such routes as appear to be possible ; I have felt certain first of this route, then of that ; and now I am disposed to wait until Wibbandune and Bedcanford have been identified.

I am aware that Mr Leeds thinks that the south bank of the Thames was so thickly wooded as to be inaccessible at this period. Yet the river was accessible in the Bronze Age ; and the finds at Taplow, dated by the British Museum authorities as from 600 to 620[33] seem to show that the same was true at that time ; and though these facts do not actually disprove Mr Leeds' theory, they make it reasonable to ask him for proof.

If Cuthwulf crossed as I have suggested, it is not too extravagant to suppose that he may have had in mind from the first the possibility of working back to the Thames. He may very well have had some idea of the lie of the hills, and the hazards involved in passing over them, from observations taken from the south bank of the river ; or indeed from information from many possible sources. If I am asked why he should cross the lower Thames instead of the narrower stream higher up, I can only suggest that he had with him a substantial number of people whom it was inconvenient to take back to the upper reaches. Further, I do not know that he had command of the upper reaches.

The Gewissae themselves were presumably a conglomeration of different races or clans : and it is, I think, not unreasonable to suppose that Cuthwulf's following consisted of families of mixed races, gathered from the debatable land lying between Wessex and Kent, as well as from Wessex itself ; for it is to be noted that when they settle they have no race or tribal name, but are known as Cilternsaetna, from the district in which they dwell ; just as happened in later years when Angles and Saxons settled in Hwiccia.

If there is anyone who thinks the question of the settlement of

[33] *Guide to Anglo-Saxon Antiquities*, p. 64.

Bucks and South Oxon worth pursuing, I would call his attention to the fact that there is a line of villages on the Icknield Way itself ; as also upon Akeman Street ; and that in the great horseshoe bend of the Thames between Wallingford and Henley, with the exception of two or three villages situated by fords or bridges, all those outside Grimsditch are up in the hills, and every one of them has a river frontage, as though the expansion had begun by a cautious movement just across Grimsditch, and spread rapidly down to the river. Can the hill-villages mean that, for some reason, the Saxon, having driven out his predecessor, settled on the site where the latter had dwelt, instead of following the supposed traditional practice, and making his home by the river ? Mr Leeds himself says[34] that though we know some of the pagan cemeteries we do not know their settlements. The cemeteries, as he shows, are often by running water. There may have been a reason for this which did not apply to the settlements. If these lie beneath the present villages, this might account for their disappearance. A reason for occupying the sites where the native had dwelt would be to save the time needed for breaking up fresh land ; and if this view could be established, it might be a confirmation of the lateness of the settlement. It may be noted that the Place-Name Society think that the name of Walton by Aylesbury indicates that the Saxon there retained the native to work for him.[35]

In conclusion, I have to express my fervent gratitude to the Editor, who has not only taken the personal interest in the subject which has resulted in the articles on Grimsditch in ANTIQUITY for September 1930 and June 1931, but has, by his criticism of my original paper, guided me into setting out my views in an intelligible form, and has persuaded me to refrain from making a number of statements which I should have had difficulty in supporting by satisfactory arguments.

There still remains a certain amount to be done in the matter of searching for references to the Dyke in charters and other documents dealing with the land ; and much to be done in the field, not least in connexion with the history of the roads ; and it daily becomes clearer that neither the field-worker nor the record-searcher can safely arrive at conclusions without knowing something of what has been done by the other.

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[34] *Archaeology of the Anglo-Saxon Settlements*, p. 16.

[35] Place-Name Society, Bucks, p. xix.

Appendix

Since this paper was written, I have, at the Editor's suggestion, minutely examined Nils Aberg's conscientious, candid, and convincing work *The Anglo-Saxons in England*,[36] which is an attempt to present a summary of the results of all the recorded researches in the field of Anglo-Saxon archaeology, with a view to establish new points of departure for estimating the chronology of the period of migrations with the help of Anglo-Saxon material.[37]

As a result, I am confirmed in my suspicion that Mr Leeds has done less than justice to his archaeological facts in his attempts to fit them into his historical theories.

Mr Leeds' work, as is natural, is mentioned on every page of the book, and the author recognizes him as a master in this field. Aberg nowhere records any disagreement with him or with Mr Reginald Smith, and I do not believe that any substantial differences exist ; except that Aberg founds no historical theories upon his conclusions, and therefore expresses them less positively.

To obtain his dates, Aberg combines chronology—the evidence of datable finds and of historical events—with typological analysis, or a careful examination of styles, shading off from the primitive to the advanced. Using this method, and working backwards, he finds it easy to survey the Kentish work of the seventh century (pp. 149–55), and to travel back to about 575 with some degree of certainty. Earlier than this, he says, the contours of the line of development become increasingly vague (p. 155). That is to say, when chronology fails, and type is the only test, dating becomes difficult and doubtful. The method is, of course, that employed by other archaeologists ; and their doubts and difficulties are the same.

With regard to the culture characteristic of the area which he describes as North of the Thames—by which he means non-Kentish —he fixes points of contact with Kent for the last quarter of the sixth century (p. 156) ; and working upon what he finds there, he traces the development of types steadily backwards from the more to the less advanced ; and then spreads out the series to cover the period between the time of the invasion and the end of the sixth century (p. 156). But—and this is important—I am inclined to think that

[36] Uppsala 1926 ; and Cambridge. Reviewed in Antiquity, September 1928, 361–3.

[37] *Op. cit.* Foreword.

here at least, although he does not say so, he is working upon a conception of a general invasion of the whole of England in about 450. I doubt if the most fervid critic of the Anglo-Saxon Chronicle would support this. This means that in some cases he has allowed for development in England a much longer period than was in fact available ; and his conclusions as to the bearing of style upon date must therefore be reconsidered.

With this reservation, we can accept his conclusions as to the succession of styles. He safeguards his dating of the early types by saying ' Chronological determination rests chiefly on typological analysis, and is supported neither by coin finds nor by points of connection with known historical events apart from the invasion' (p. 156).

It is obvious that much depends upon the dates at which the invaders landed. I have already hinted at this ; and it is therefore of importance to observe that in Aberg's opinion archaeology confirms the date of the earliest considerable invasion as given by Bede and Prosper of Aquitaine, namely 440–450 (p. 1) ; that it confirms also Bede's statement that Kent, the Isle of Wight, and part of Hants were occupied by a race distinct from the other invaders of Britain, whether they are to be called Jutes or not (p. 2) ; and that the invaders of Sussex were Saxon (p. 2).

He further states positively that in the fifth century there is no discernible difference in type between the ornaments of Kent and those of the rest of England (p. 2) ; though later on there are notable divergences, with which he deals in detail (pp. 3–9).

If this be so, it follows that, even if Mr Leeds' date for the occupation of Kempston and Sutton Courtenay be correct, the resemblances between the finds at the two places would not prove that the same stream of invaders deposited both.

I propose to summarize briefly what Aberg has to say with regard to those classes of objects which he refers wholly or in part to the fifth century.

He finds that the earlier cruciform brooches are common to Kent and the rest of England ; while the later cruciform brooch does not appear in Kent at all (p. 4). On typological grounds he dates the Kentish specimens as belonging to the period 450–510 (p. 30), when development ceases in Kent. He believes that, on the whole, the Kentish cruciform brooches develop in the same way as the corresponding types on the continent, and go out of use at about the same

time as they do (p. 31). He concludes that Kent stood in closer relation with the continent than the rest of England (p. 31).

In non-Kentish areas, he finds that, instead of ceasing, the development continues—the use of this word indicates that he is treating 450 as the commencing date in non-Kentish, as well as in Kentish areas—steadily over perhaps another hundred years (pp. 32, and 156), and classifies five type-groups, of which the earliest only need concern us. His evidence for the dates of the earliest group is, he says, typological only, and no assistance is to be obtained from other objects found in the graves with the brooches (p. 35). Precedent to this earliest group of cruciform brooches comes, he says, the Dorchester brooch, the type of which dates it as having been made about 400, although, as he points out, it may have been deposited much later (p. 13). A brooch found in Suffolk, which bears considerable resemblance to the Dorchester specimen, is the next earliest, and with others from East Anglia and one from East Shefford, Berks, is placed by him as belonging to a period ranging from about 440 to 500 (p. 36). His second group is placed, by an analysis of its types, between 500 and 550 (p. 38) ; and the remainder, overlapping but gradually moving forward, by degrees acquire characteristics which enable them to be assigned definitely to the latter part of the sixth century (pp. 41, 50, 51).

The other great class of brooches, known as saucer brooches, falls into two subdivisions, cast and applied, of which the second admittedly flourished during the latter half of the sixth century (pp. 22, 25). The evidence for this is both chronological and typological.

The cast brooches are regarded as earlier. They have been found in Hanover, which fact is apparently accepted as evidence that they were a product of the continental art of the early fifth century (p. 16). [It appears from Brit. Mus. Guide to Anglo-Saxon Antiquities, p. 37, that the evidence as to the Hanover finds is simply that they are pre-migration in date.] They are found in Kent; at Mitcham and Beddington in Surrey ; in Sussex ; at Droxford, Hants ; at Long Wittenham, East Shefford, and Frilford, Berks ; in Oxfordshire ; at Kempston, Beds ; in Cambridgeshire, Hunts, Northants, and Warwickshire (p. 18).

With regard to date, Aberg says that the chronological position of the earliest of these brooches, namely those with spiral ornament, is somewhat uncertain. No enclosed finds from the fifth century have yet been made (pp. 18, 159), and the assumption that some of

them date from the fifth century is based on their resemblance to the Hanover finds ; while the fact that they persisted at least to the middle of the sixth century is rendered probable by their presence in late burial grounds such as Fairford (pp. 18, 19).

This analysis of the development of these two classes of brooch supports rather than undermines the dates given by the Chronicle for the successive invasions. The earliest Kentish brooches were of course brought over by the invaders ; and Aberg would as it seems agree that their sons may have obtained their supplies from the continent during the strenuous years of the conquest. So soon as the settlement was complete, the arts and crafts would begin to be practised; but by that time we are approaching the date allotted by the Chronicle for Cerdic's invasion. Naturally the new invaders, and those who followed, from 495 to 526, brought with them ornaments of the type current on the continent, and therefore also in Kent. In turn they too would begin to manufacture for their own needs, and then, and not till then, the streams of culture in Kent and in the rest of England would tend to diverge.

We have now exhausted the types to which a fifth-century date has been assigned, with the important exception of the rosette-shaped attachment plates and strap-ends (pp. 12, 13) found at Dorchester, Oxon, Long Wittenham, Berks, and in Kent, Surrey, and Sussex ; and the four famous equal-armed relief-brooches. These have been regarded as among the earliest Saxon antiquities in England.

Rosettes and strap-ends of the types referred to have not yet, says Aberg, been found together with such other objects as render possible a definite chronological determination. He suggests, however, that it is probable that some of the finds can be assigned to the time before the middle of the fifth century (p. 13). His reason apparently is that their style presents certain resemblances to that of the equal-armed relief-brooches (p. 13, note 2), to which we will therefore pass.

This type of brooch has been found at Sutton Courtenay, Berks, at Kempston, Beds, and twice in Cambridgeshire ; but not in Kent. Aberg expresses considerable doubt as to their date (p. 14) ; he thinks they cannot be placed at earliest before the middle of the fifth century ; but he notes that they show signs of the influence of provincial Roman art, and, like other antiquities found in England, have no counterparts in the old homes of the Anglo-Saxons on the continent (p. 15). He goes so far as to hazard the suggestion that they may represent a survival of the classical tradition in England as continued by Celts,

and not brought in by Teutons (p. 16). It is thus quite possible that this type of brooch has no bearing on the date of the invasion at all. This leaves the primitive Kempston brooch, which is usually assigned to a very early date on the assumption that it is the prototype of the equal-armed relief-brooch (pp. 13, 14), in the air, with the edifices which have been built upon it.

Archaeology thus affords no positive evidence whatever for rejecting all or any of the dates given by the Chronicle. It may engender doubts, but that is not quite the same thing. If we allow that the Dorchester finds are early, there is no reason why they may not represent the result of a Kentish expedition up the Thames valley, initiated soon after the conquest of Kent, and consisting of a force large enough to hold its own, and to form settlements at Frilford and East Shefford. In the light of Aberg's opinion, it is impossible to assert that these burial places are Saxon and not Kentish. This would bring Mitcham and Frilford into line ; and would afford a possible explanation for Ceawlin's quarrel with Kent.

Thanks are due to the Librarian of Corpus Christi College, Cambridge, for kindly arranging a photograph to be taken of the 'Anglo-Saxon Chronicle', from which the plate facing p. 291 *has been reproduced.*—EDITOR.

The Palace of Minos*

by Percy Gardner

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WHEN I acceded to the suggestion of the Editor of Antiquity that I should write a review of the third volume of Sir Arthur Evans' great work on the palace at Cnossus I was aware of the difficulty of the task I was undertaking. It would of course be quite impossible in a brief article to give any notion of the vast operations which the author has carried through with infinite skill and patience, revealing to us the character of a most curious civilization in Crete, the very existence of which was not suspected until the excavations of Schliemann at Mycenae gave us data. In 1877 I was so much interested by these revelations of the spade that I went to Greece to investigate them, and at Athens Sir Charles Newton and I were shown all the treasures of Mycenae. Newton's article on them in the *Edinburgh Review*,[1] and mine in the *Quarterly Review*,[2] introduced them to English archaeologists, greatly to Schliemann's satisfaction, as he was openly accused at that centre of scandal, Athens, of having had the rich treasures made by local goldsmiths. And Stephani, perhaps the most learned archaeologist living, was claiming them as the buried spoil of the barbarian invaders of the Roman Empire.

Look on this picture and on that ! By slow degrees Evans has succeeded in recovering in a great measure the architecture, the art, the manners and customs, the physical type, the religion, of the great civilization of which that revealed at Mycenae was but a late offshoot, a civilization contemporary with the mighty empires of the East, and in some ways more interesting than any of them, since it is more European, more in the line of our civilization and progress.

Schliemann was drawn to his work of excavation by a keen but somewhat naive enthusiasm for the Homeric poems. Of Sir Arthur Evans it may fairly be said that the experiences of his whole life had

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* *The Palace of Minos at Knossos*, by Sir Arthur Evans. Volume III, 1930. *Macmillan & Co.* £5 5*s*.

[1] January 1878. [2] January 1878, pp. 62–93.

fitted him in an eminent degree for the work which awaited him. A son of one of the greatest of antiquaries and collectors, Sir John Evans, he has been familiar from childhood with every kind of monument of the past, and acquired, as a second nature, the eye of the archaeologist and the sense of artistic style which comes of life-long practice. His experience as Keeper of the Ashmolean Museum has rendered his immense knowledge systematic. His early work on the coins of ancient Italy and Sicily, which placed him in the first rank of numismatists, has developed his sense of beauty and his power of co-ordinating the facts of archaeological history with political events and the course of civilization. As son-in-law of the great historian Freeman, whose history of Sicily he supplemented, he has learned breadth, and to trace historic sequences. And it has been his good fortune to inherit wealth which has enabled him to work without dependence on endowments and institutions, to make most costly restorations, and to secure the services of many helpers, architects, artists and organizers, in his prolonged excavations. His equipment is indeed unique.

It was Schliemann who, in a flash of insight, discerned that Crete was the district where the earlier history of Mycenaean art was to be discovered. But there he stopped. Sir Arthur Evans started like a sleuth-hound on the trail, following on with steady perseverance. Having tracked certain antiquities to their source, he purchased a site near Cnossus ; and his faith has been rewarded by the gradual unfolding there year by year since 1900 of a vast structure, which constantly grew in interest and importance. Dr Mackenzie on the spot offered valuable aid. And meantime at other sites in the island American, French, German, Italian and Greek explorers supplemented the excavations at Cnossus. The site has now been made over to the British School at Athens, in whose valuable Annual, year by year, the course of discovery had received a preliminary record.

No one could attempt to criticize the notable reconstructions of the palace at Cnossus who was not a master in architecture, and acquainted with all the local conditions. The latest reconstructions would not have been possible but for the use of a new material, ferro-concrete. And every kind of means, geologic, chemical, optical, has been used. Dwelling among the ruins Sir Arthur has lived over again the life of the Minoans, partaken of their sports, mingled with the crowd in their halls, observed how the light falls in particular hours of the day, what artistic effects the people most

affected in their interiors. Yet while thus indulging the historic imagination, he never leaves the ground of fact, extorting from every scrap of stone or metal all the information possible.

To call the palace at Cnossus the palace of Minos is quite legitimate. It does not of course mean that a historic king Minos built the palace and thence ruled over wide domains. In fact several layers or periods may be discerned in the palace itself. The terms Minos and Minoan stand for a civilization highly developed and continuous from the neolithic age, of which abundant remains were found, until the advent of the semi-barbarous Achaeans and Dorians of the north, who for a time ruined it, though no doubt they brought with them the seeds of a higher and more lasting order. Possibly hereafter, if some future Champollion succeeds in reading the very numerous inscribed tablets of terra-cotta, we may know much more of the actual history of the age. Meantime we have to be content with semi-historic and archaeological prehistory, the dates of which are fixed mainly by the annals of Egypt.

In his first volume, Evans dealt with the history of the palace in the early Minoan age. In the second volume he dealt with other houses in the neighbourhood and with the geographical relations of Cnossus to lands of the south and east. The third volume is devoted to the Palace itself in the Middle Minoan Age. But as it is especially in this age, the culminating point of the whole civilization, that the artistic remains are most striking, the author devotes much of the volume to following out the indications furnished by these remains as to the ethnography, the customs, the sports and the religion of the Minoan people.

It is with these developments of civilization that I propose mainly to deal. I am no architect. Nor could even an architect venture to criticize Evans' wonderfully bold restorations save on the spot. But the contributions he has made to the history of painting, the history of manners, and the history of religion must always retain their value and importance. And of them I may venture to speak with diffidence, though the ground is extremely slippery, and especially analogies from parallel developments in the Greece of history must be used with extreme caution.

Nothing in the volume before us is more complete and masterly than the illustrations. In books produced in England these are usually a weak point. The publishers are apt to regard illustration

as a luxury, and the cheapness of photographic work, with its superficial exactness, places it in high favour with them. But Evans fully realizes that it is necessary to place before readers representations which lay exact emphasis on the points which he is discussing. He has been able to secure the help of several highly skilled artists, among whom the two Gilliérons, father and son, are conspicuous. They bring out, eliminating the surroundings, what is necessary to the purpose. They are most accurate in point of style, and do not omit the smallest detail which has, or may have, any importance. They restore, with a wonderful combination of boldness and restraint, small fragments of painting, of relief or of figures. Such is their mastery of the whole field, that they can venture to transpose designs from one technique to another. For example, at p. 157 we have the design of the intaglio which Evans calls the Ring of Nestor, because it was found at Nestor's city of Pylos, translated into coloured fresco. It is a wonderful example of what may be called fine scholarship in art. The architectural drawings also, the work of a whole group of assistants, Mr Piet de Jong, Mr C. Doll, Mr Theodore Fyfe and others are so exact and so numerous that nothing is neglected and everything is made clear.

Nothing impresses the student of the frescoes, the intaglios, and the figurines of Cnossus more strongly than the devotion of the people to athletic sports, and sports of a very unusual kind. In Egyptian wall-paintings we find a vast number of representations of dancing, wrestling, and boxing. Such are abundant also at Cnossus. But they are quite over-shadowed by a kind of sport otherwise almost unknown in antiquity, scenes of bull-baiting and bull-taming. We are told that the youths of Thessaly in classical times practised the art of overthrowing bulls by seizing their horns, and this sport is represented on an interesting relief in the Ashmolean Museum. The cowboys of the western states of America practise a very similar sport. It has no relation to the Spanish bull-fight.

It seems from the Cnossian paintings that no people carried their love of bull-throwing so far as did the Cretans. With it they combined the art of making somersaults over the backs of charging bulls. And the remarkable thing is that these somersaults were practised by women as well as by men. But even more interesting than the performers are the groups of spectators on the frescoes, both men and women. The dress of men was extremely simple, consisting of little more than a loin-cloth. That of women was far more elaborate ; and no contrast

could be greater than that offered by their long curls, their wasp waists, their ample skirts with flounces, to the very simple chiton and over-dress of the Greek women of historic times. They are seated in groups, evidently engaged rather in talking scandal one to another than in watching the sports. These ladies in their dress and their animated gestures are quite a new feature in ancient art, and have a curiously modern and modish look, justifying the exclamation of M. Homolle—' Mais ce sont des Parisiennes '. In the frontispiece we see two of these ladies seated in animated talk in the Queen's Megaron, which is restored, so far as is possible, with all its original brilliant decoration. When we turn to this wonderful picture from Egyptian and Mesopotamian scenes of worship and court ceremonies, we feel that we are in a different world, and a world much more like that which we see around us. Even the Greeks, our great teachers in all matters of art, may seem to belong to a more conventional world than these women in their luxurious naturalism.

One thing which at once strikes us in all Minoan scenes is the hard and tight waist-belt worn alike by men and women. It is so rigid that it might well be of metal : but is doubtless of hard leather. Doubts have been expressed whether the human frame could endure such tight girding. No doubt it is conventionally exaggerated, as is the musculature of the athletes. In the art of all peoples we find a tendency to exaggerate what are considered points of beauty; Indian art emphasizes breadth of hips in women, Greek art slimness in women, especially in Amazons ; Italian painting fairness of hair, and so forth. In our own plates of fashion stress is laid on the points, however absurd and unnatural, which happen at the moment to be in fashion. But the general impression which we get in Minoan art is of young men sinewy and tightly girt, and of women also well-girt but exuberant as regards the breast.

It is clear that Evans is especially interested in the representations of religious cult and of the deities. He is quite right. Religion does not dominate Minoan art as it does that of Egypt and Babylon, but it underlies it in a high degree. The royal halls of the palace contain usually some indications of worship. The sacred symbols, the double axe, probably standing for lightning, and the ' horns of consecration ', very possibly an extremely conventionalized copy of an ' adorant ' with raised arms, abound everywhere. Even the bull-sports may have been, like the Olympian games in Greece, of a religious character. Direct representations of deities or of cultus are rare at Mycenae,

and until lately also at Cnossus. But they are multiplying. There are sufficient proofs that the chief deity was female, a mother-goddess with whom was associated a youthful deity, her son, who appears to have, on occasion, died and been reborn. The local traditions of Crete fit in with this view ; and parallels to it are found in places where we should specially look for them, in Phrygia, Syria and Anatolia generally.

At first sight it may shock one to find that the religion of the Divine Mother and her dying Son, which is still the basis of belief among eastern Christians, should go back to pagan and prehistoric times. But the shock need not be serious. The value of a religion lies not in its outward form and archaeological origin, but in its power over heart and life. And a new religion, however revolutionary, will have a tendency to adopt some of the features of that which it supersedes. The religions of historic Greece, of Judaea and of primitive Christianity were highly organized and aggressive, but there filtered into them, least perhaps into the Jewish religion, a good deal of the deep-seated religious feelings and customs of the surrounding nations. In all of them a supreme male deity was the highest object of worship. Evans speaks of the religion of the Cretans as matriarchal. This is a term which is often misunderstood; but the difference in emphasis between male and female deities in the Cretan religion and that of the Achaeans and Dorians is very notable.

There is one little monument, small in size, but of special interest and invaluable for suggestion, on which the author especially dwells. This is the gold 'Ring of Nestor', found in Messenia, in the intaglios of which he finds embodied the Minoan beliefs as to the under-world, or the world beyond the grave. According to him they represent the separation of a young pair of lovers and their meeting again in a future life through the kind providence of the Mother-goddess. It is always dangerous to draw inferences from a single example ; and an explorer is always specially in danger when he attempts to do so ; but certainly the ring is an exceptionally interesting and intriguing example. The Great Mother appears in a much less attractive form as a snake-goddess with serpents winding about her arms, who dominates shrines arranged in her honour in various parts of the palace, amid votaries and dedicated offerings.

For the history of art, the Minoan frescoes, reliefs and gems offer a remarkably rich harvest. The style is quite unique ; one can never mistake a Minoan work for one of any other nation ; and some arts

such as the inlaying of the blades of daggers with metals of various hues, which Evans calls ' painting in metals ', is not found in so full development elsewhere. Here undoubtedly the nearest parallel is in the Homeric descriptions of arms and ornament, notably the description of the shield of Achilles. Whether Homer is describing actual works of art passed down to his contemporaries by the earlier inhabitants, or whether he is working out mere hints, offers a notable field for controversy. At Cnossus the fresco style, the miniature style, the intaglio style, all reach very characteristic results and all offer many conventions and symbols which prove a long and continuous course of development.

We are promised a fourth volume which will return to the inscribed tablets of terra-cotta, still awaiting interpretation, and furnish us with a complete index. It has been the lot of very few men to discover by excavation a new and highly developed phase of civilization in the past; and it may be confidently said that none of the few has ever worked out his results with more patience, knowledge, acumen, and historic imagination.

The Word 'Palstave'

by T. D. Kendrick

I SUPPOSE we are all agreed that ' celt ' is not a particularly brilliant name for a stone or bronze axe, even though we continue to use it. It survives, of course, not on its merits, but because we really do need a word other than ' axe ' to denote these narrow-edged prehistoric tools, and ' celt ' is at present the only substitute we have. We might, I mean, abolish the name celt if only celts looked a little more like axes ; but we cannot, because there are many people in this world who do not like an axe to be called an axe unless it is the sort of axe they are accustomed to ; whereas if you call a not easily recognizable axe a 'celt' and make rather a fuss about explaining that you mean by this a prehistoric axe, then these same people will probably thank you very much indeed and say that it is all most interesting. In other words we keep on talking and writing about celts because the public like the word ; it is, after all, short and sweet, easy to remember, and devastatingly incomprehensible to the uninitiated. I feel that it is necessary for us to put up with ' celt ', and I am only remarking here that we know it is a base word of miserable, mistaken coinage. I ask simply that we do not pretend to ourselves that it is a good word on the grounds that it is old-established and familiar ; it was a bad word in the beginning and it always will be a bad word, despite its now considerable antiquity and frequent use. Lots and lots of blacks do not make a white, not even if the oldest black is 18th century black.

In addition to this name ' celt ' which we apply to most of our stone and bronze axes, we also have the group-name ' palstave ' to distinguish the members of a particular species of the celt genus. It is a very useful word and I do not think we could do without it, for though we can talk about ' flat celts ', ' flanged celts ', and ' winged celts ', no one has yet succeeded in substituting a snappy descriptive name like these for the palstave-variety of celt. I should not dream, therefore, of suggesting that we get rid of ' palstave ' and, indeed, I have myself a considerable affection for this curious word ; but as so few of us know what it means or why it is the name of the prehistoric implements concerned, something may profitably be said about its

BRONZE PALSTAVES FROM DENMARK (CENTRE) AND ENGLAND (LEFT AND RIGHT)

facing p. 322

history. That the word happens to come rather badly out of the enquiry is not, of course, my fault.

'Palstave' is the Old Norse *pálstafr* which means either 'pole-staff' (assuming the first element to be ON. *páll*) or 'spike' (supposing the whole word to be an ON. variant of OE. *palstr* or *palster*[1]). If we accept the first derivation, as high authority bids us,[2] we have further to allow that the word probably meant 'hoe-staff', for *páll* (Lat. *pālus*; Fr. *pelle*) generally signified in Old Norse, as it still does in modern Icelandic, a 'narrow iron spade'. The Icelanders have, moreover, a turf-spade that goes by the name (so it is stated) of *pálstafr*, and, having been told this, we clinch matters by saying outright that our word *palstave* is simply the name of an Icelandic agricultural implement, adding that we have borrowed the name for a special variety of prehistoric bronze tool that bears in some small degree a resemblance to the business-end of the Icelandic turf-hoe.

The stages whereby this standard explanation was developed are fairly easy to follow. As early as 1825 J. H. Jahn commented on the word *pálstafr* which he had come across several times in the saga-literature of the north;[3] he said that judging by the passages concerned the thing was obviously some kind of big spear, but that the etymology of the name suggested with equal force that it was in reality more of an agricultural implement than a weapon. As this remark implies, he supposed that the first element was *páll*, a spade; but he was also prepared to consider the claims of *pállr*, a step, and by way of compromise he gave as his notion of a palstave a most interesting drawing of a stepped-hoe or digging-stick (fig. 1). He was writing about weapons, and this illustration appears in a plate otherwise devoted entirely to weapons; but Jahn felt that this hoe might have been a formidable weapon upon occasions and would do perfectly well as a representation of the palstaves used in ancient sea-fights.

FIG. 1. STEPPED-HOE OR DIGGING-STICK (AFTER JAHN)

[1] H. Falk, *Altnordische Waffenkunde*, Oslo, 1914, p. 76.
[2] See, for instance, the *Oxford English Dictionary*.
[3] *Nordens, isaer Danmarks Krigsvaesen*, Copenhagen, 1825, p. 231.

The historians and philologists did not seem inclined to debate this point, and now was the time for the archaeologists to step in. When exactly they first appropriated the word I cannot say, but it must have been very soon after Jahn's book appeared, for in Molbech's *Dansk Ordbog* of 1833 *paalstav* is defined as (A) an ancient variety of spear and (B) a chisel-like implement found in barrows ; thus it is no surprise to find that Worsaae used the word in its modern archaeological sense in 1843.[4] What will interest us, however, is that by the middle of the 19th century we find that the archaeologists had not merely accustomed themselves to the use of ' palstave ', but were making up their minds about its meaning, arriving finally at the conclusion that the word was not the obsolete name of a forgotten weapon, but the *living* name of an Icelandic farm-implement. This, of course, was much more than Jahn had said, for he had simply observed that ' palstave ' *ought* to mean a digging-tool of some kind ; but his remarkable picture had given the archaeologists all that they wanted and caused them temporarily to forget the supposed spear-like palstave of the sagas.

The new phase in the word's history begins with J. B. Sorterup's 'Guide' to the National Museum at Copenhagen, published in 1846, for it is there observed[5] that one variety of palstave exhibited in the collection (a broad and flat kind) resembled a gardening or agricultural tool lately used in Iceland. This in itself was an innocent and quite justifiable statement, but it happened that it caught the eye of an Englishman, Mr James Yates, who was at that time engaged in proving to the world that bronze celts were first and foremost instruments for destroying fortifications and making earthworks and roads. He read Sorterup's comment on the Danish palstaves and he was jubilant. ' If then ', he said, ' we have *ample proof* (my italics) that these instruments were used in tilling the soil, we may the more readily admit their employment in any military operations which required the same kind of manual labour '.[6] And to add to his pleasure, another Dane, the eminent Dr C. J. Thomsen, thereupon sent to England pictures of two of the Icelandic tools which he said were still in use and *were called palstaves* (my italics again) ; they were employed, Dr Thomsen averred, ' to break the ice in winter, and to

[4] *Danmarks Oldtid*, p. 22.

[5] *Kurze Übersicht—im Kopenhagner Museum, p.* 24.

[6] *Arch. Journ.*, 1849, VI, 371.

part the clods of earth, which, in Iceland, is dug and not ploughed '. Mr Yates naturally published these illustrations without delay[7] and was quick to observe how the little bit about digging and not ploughing suited his own views as to the celt being, when not used for picking walls to pieces, an agricultural *dolabra*. ' Nec minus dolabra quam vomere bubulcus utatur ' he quotes.[8]

It is obvious, therefore, that thanks to Mr Yates and Dr Thomsen, we have made a very rapid advance. Sorterup had said that *some* Danish palstaves looked like an Icelandic agricultural implement, and we see at once that this is 'ample proof' that *all* celts *are* agricultural implements. Moreover, we are informed that the Icelandic implement in question was actually called a palstave, and as we already know that the Icelandic palstave resembles the prehistoric palstave, we really do not need to go hunting about among the sagas in order to discover the origins of the word. The bronze implement was a spade, and we call it a palstave because that is the name of modern spades just like it. A slick, satisfactory result which I for one regard with sympathetic respect ; I have played about a little with ' ample proof ' myself.

This was the position when Sir John Evans wrote his great book on bronze implements. We can see that by 1881 the turf-hoe analogy had made considerable headway, because in introducing the word palstave he is able to tell us without further ado that the Scandinavians called a certain variety of bronze implement by this name, on account of its resemblance to a spade still in use in Iceland and called a *paalstab*.[9] Sir John very reasonably left the matter there, since, as he said, the name was by this time well-established ; so he paused only to correct Mr Yates's erroneous derivation of the *páll*-element from *pala*, to labour, and to remark that besides its modern

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[7] *Arch. Journ.*, 1850, VII, 74.

[8] Naturally there is much to be said for Mr Yates's view, but the matter of the probable use of the prehistoric palstave does not concern us here. Mr Crawford, however, has reminded me of one important piece of evidence under this heading, namely the discovery of a broken palstave at the bottom of a ditch whose chalk walls bore long spud-scars that fitted the cutting end of the bronze implement ; this was in the 'Angle Ditch' near Wor Barrow on Handley Down, Dorset (Pitt-Rivers. *Cranborne Chase*, IV, 104, pl. 263, 1). I may also add that some remarks about the possible use of the palstave in making canoes will be found in *Antiquaries Journal*, VI, pp. 125, 319.

[9] *Ancient Bronze Implements, London*, 1881, p. 71.

meaning of spade the word seems to have had an older meaning, signifying originally a weapon of some kind.

The first point that I want to make myself is that I believe Dr Thomsen was misinformed about the Icelanders calling their turf-spade a *pálstafr*. Of course, if an Icelander can assure me positively that this word really was current in his country at the beginning of the 19th century and meant a kind of spade, I shall have to apologize handsomely for my present doubts on the subject ; but I say here that I can discover no evidence, either on my own account or as a result of enquiries among Icelanders, that *pálstafr* is, or was, an equivalent of the *páll*. For that is what Dr Thomsen illustrated and Mr Yates welcomed so eagerly, a turf-hoe known as a *páll* or *pálreka*, which are names that the Icelanders know quite well. I can only suggest that it was because the handle of this is called a *palskaft*, or perhaps because the sod cut by it is known as a *paltorfa*, that the *páll* and the *pálstafr* were confused. I may perhaps add that in any event the comparison between the turf-hoe and the bronze implement was not particularly felicitous, since the illustrated *pallar* were socketed and not adapted for fitting into a cleft shaft ; but this lack of real resemblance need not detain us here, especially as many other turf-spades are flanged, not socketed, and we must concede that the bronze palstave would certainly make a useful hoe.

I say then, that we must set aside the Icelandic turf-hoe on the grounds that it was not called a palstave at all (until Dr Thomsen said that it was), and if I am right here it follows that the archaeologists' explanation of the naming of the bronze implements crumbles straightway into dust, for we are left with nothing but an unconvincing resemblance between the palstave and the modern hoe. Refusing, therefore, to be misled by the *páll* and its distant likeness to the palstave, we must return to Sir John Evans's concluding remark and accept as the main problem the matter of what the authentic but obsolete word *pálstafr* meant. As Jahn said long ago this is found on several occasions in ancient Icelandic literature, and I do not think there is any doubt that he was right in assuming the object itself to have been some sort of missile weapon ; indeed we actually find the expression ' spears, palstaves, and all kinds of missiles '.[10] It is quite true that we also find ' halberds, palstaves, and spears '[11] grouped

[10] *Karlamagnús saga* (*ed.* Unger), 81.

[11] *Fornmanna sögur* (*ed. Copenhagen* 1825–35), VII, 265.

together, and that Dasent translated the word *pálstafr* as halberd in the passage in Njal's saga where a mounted man holding a palstave in his hand parleys with Queen Gormflaith before the Battle of Clontarf,[12] but there are at least two other passages that are, like the first I quoted, heavily in favour of the palstave being a missile ; these occur in the ' King's Mirror ' (Konungs Skjuggsja), a noble didactic work that was written in Norway in the period 1220–1260. The first of them reads,

> every other kind of missile (skotwápn) [such as] spears and palstaves, both heavy and light.[13]

In the second passage the father explains to his son that in a sea-fight it is as well to be provided with 'two spears (spjot) which are not to be thrown, one long and one short ', and he then adds,

> ' One must have various missiles on board ship, both heavy *pálstafir* and light flying javelins (*gafloc*) ; try to hit an enemy's shield with a *pálstafr*, and then when his shield is forced away from him [by the weight of the blow], attack him with a light javelin, if you cannot reach him with a long-handled spear '.[14]

Thus we see that in the early 13th century the palstave was a fairly heavy missile that was discharged before one could reach the enemy with a long thrusting weapon, and there seems to me to be only one thing that it could have been, namely a throwing-axe. The alternative is some kind of middle-weight spear, something between a javelin and a pike, but as I suppose that this would not have been called anything but a ' spear ', I imagine that the palstave was a missile of another sort, something distinct enough to have a name of its own. It is true that no throwing-axes of this early date have survived, but we have ' Wurfbeile ' of the 15th and 16th centuries to show us the kind of thing the weapon may have been, an axe-blade, halberd-shaped or bearded, mounted on a shaft 15 inches to 2 feet long (fig. 2).[15] I

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[12] *Njala* (*ed. Halle*), 157; *trans.* (Dasent), 156.

[13] *Kgs.* 89 (*ed.* Brenner, p. 105).

[14] *Kgs.* 86 (*ed.* Brenner, p. 101). The translation of this passage has been made by Mr Jón Stefansson to whom I am indebted for considerable help in the preparation of these notes. There is an English translation of the whole work by L. M. Larson (*New York*, 1917).

[15] See Walter Rose, *Zeits. f. hist. Waffenkunde*, II, pp. 239, 355 ; H. Stöcklein, *ib., N. F.* II (1926), p. 17. I have to thank Mr J. G. Mann for these references.

concede that on this view the expression 'heavy palstave' is difficult to understand, but I suppose there may have been throwing-axes of various weights. It is a weak case, I know ; but as we must rule out angons, javelins, and spears, and as I imagine a spiked club or mace is out of the question, there seems to be nothing for it but to say that the early medieval palstave was a throwing-axe, a 13th century version of the ' francisca ' of the Merovingian Franks and of the Anglo-Saxons. It only remains for me to point out, then, that there is no evidence to show that the weapon itself was characteristically Icelandic ; in fact I do not believe that it was even a typical viking weapon. Professor Halldór Hermannsson has remarked to me that wherever the word occurs in Old Norse literature ' it is either in translated sagas or in descriptions of battles outside Iceland '. Certainly the palstaves of the *King's Mirror* must be assigned not to the Icelanders or the Norsemen in their homes, but to the mainland armies of Europe.

We have still to face, however, a very ugly little problem, namely, why should this missile be called by the Norsemen a ' pole-staff ' when it was, so far as one can tell, a short-handled axe ? On this point, knowing it to be a serious one, I can only offer with becoming hesitation my opinion that *páll-stafr* is a hopeless and unlikely combination, and that it does not really represent the origin of the word *pálstafr*. In the last resort the two elements are synonymous (pole-staff), but even if one takes *páll* to mean spade I think *páll-stafr* is a very improbable and meaningless experiment in word-formation, quite apart from the fact that I should expect a *skepti* rather than a *stafr* element if we are going to insist that the handle of the weapon was part of its name. In short, I do not believe that *pálstafr* is really of Old Norse coining, and I return to the derivation suggested by Hjalmar Falk who supposed that it was simply a Norse version of the Anglo-Saxon word *palstr* or *palster*. This means a ' spike ', which I admit does not make things very much easier, but I daresay that in the Norse form we have not got the complete name of the weapon. A spike at the end of the shaft is quite ordinary in the later Wurfbeile and may have been characteristic of the earlier examples ; perhaps if we combine *palstr* with a ' throwing ' element like *wiver*[16] we may approach the original name that the Norsemen transformed into palstave; but this is the flimsiest kind of guesswork, and I ought to

[16] Cf. M. L. Keller, *Anglo-Saxon Weapon Names. Heidelberg*, 1906, p. 215.

add that, as we are dealing with the Crusade Period, we must not exclude the possibility of an origin altogether foreign to the German world.

To sum up, I have rejected the explanation of a ' palstave ' as the lately current name of an Icelandic turf-hoe ; yet I have dragged the poor word back from the daylight certainty of Mr Yates's writings only to hide it away again in a profound, gloomy, historical and philological mist. This is, I feel, a horrid thing to do ; let me say, then, that I shall be the first to cheer when some learned rescuer gives ' palstave ' back to us with a meaning that we can square with the saga-passages I have quoted.

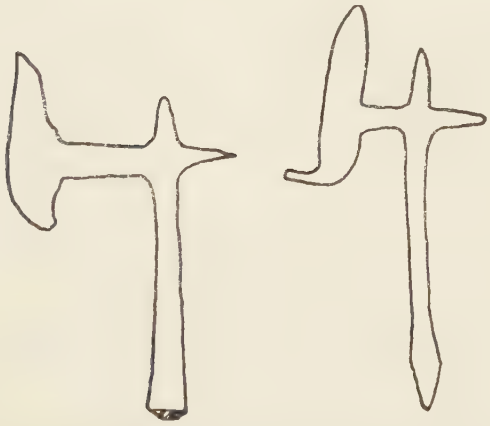

Fig. 2. MEDIEVAL THROWING-AXES FROM GERMANY (AFTER STÖCKLEIN)

Excavations at Susa (Persia), 1930-1931

by R. DE MECQUENEM
Director of the French Archaeological Mission in Susiana

THE ruins of ancient Susa, prior to the Achaemenid period (sixth century B.C.), are shaped like a square, each side of which is 700 metres long. The angles face the cardinal points. The southern angle is however prolonged by an external mound, which M. Dieulafoy has called the 'the Dungeon'.

The acropolis of Susa occupies the main portion of the north-western side and we are continuing there the systematic exploration inaugurated by M. de Morgan. This year we widened and lengthened a trench which last season had reached the natural soil, and here we found a big ditch dug in the middle Elamite period. It was 8 metres wide, and 6.25 metres deep ; we excavated 10.25 metres of its length without reaching its other end. The sides were covered by raw (sun-dried) bricks, which in some places were protected by thick walls of kiln-fired bricks. Some of these burnt bricks have cuneiform inscriptions recording the dedication of Elamite temples. In the silting of this ditch we found fragments of arragonite vases, often inscribed with the names of the Achaemenid sovereigns Xerxes and Artaxerxes, and fragments of horns and ears of the stone protomas of the bulls forming the capitals of the columns of the Apadana. It seems that this ditch was originally a tank of water, belonging to the Elamite temples of the God Shushinak and of the Goddess Nin-Har-Shag. Water was brought into the tank by means of an aqueduct. The ditch was filled up gradually during the post-Achaemenid periods (Parthian and Sassanid). The fact that the ground surrounding the ditch corresponded to levels anterior to the third millennium B.C., was very perplexing until the real nature of the ditch was fully ascertained. However, during the course of clearing the remains we found a fragment of the pedestal of a Sumerian statue, chiselled out of a blue stone. Judging from its style it can be dated to the period of Agade, 2700 B.C. The fragment has a bas-relief representing the busts of two bearded men, probably the followers of the king. They are bare-headed, the

hair is abundant and is gathered on the neck in a long thick lock, whereas two long tresses are wound round the head and brought to the forehead, and fastened together in a knot. They are represented in profile, with eyes almost *de face*, long-nosed, thick-lipped, and long-necked ; the beards are long and pointed, and descend to the line of the shoulder. One of the men seems to be clad in a tunic ; his fore-arms are raised upwards, and his hands rest on the chest ; he is perhaps a servant. The other wears a fleecy garment, which leaves the right arm and the chest bare ; the position of his arm shows that he is carrying a weapon.

The section of the rest of this trench was regular. On the top we found the unpainted pottery of Susa II. It was represented

FIG. 1. DRAWINGS ON BONE IMPLEMENTS FOUND AT SUSA

by vases with a spout, craters with four protuberances, having lateral holes for suspension. These vases have a red slip and are decorated with designs in relief. Some have twisted handles, others are without slip, and decorated with incised geometrical designs. This level seems to belong to the beginning of the period of the Awan dynasty of Susa, which flourished about 3100 B.C. Beneath it we found another type of pottery, represented by vases made of coarse but well-baked clay ; vases with round bottoms and wide mouths, small jugs with long open spouts and with long pierced handles, large and small vases with twisted handles. There were also sickles of burned clay, stone hammers and axes, and flat seals. With the exception of one double-axe and small awls with handles of

hardened bitumen, copper implements were rare. Moreover, we found here two awls and a stiletto made of gazelle bone, some with primitive drawings (fig. 3).

During the season 1930, about fifty of these bone implements were found; complete drawings of them were published by Rev. Father Scheil in *Revue d'Assyriologie*. Four of the more interesting examples are reproduced here (fig. 1):—(1) the figure of a man standing picking from a tree and followed by a small fox (?); (2) a gazelle, a man, and a fowl; (3, 4) men on horseback.*

Below these levels, the depth of which is 8 metres, corresponding to different civilizations which we are unable to determine, we came across another level, 2 metres thick, where we found fragments of painted pottery of Susa 1, together with others of a red slip-ware. The latter, though remarkable for its technique, was without any decoration whatsoever. This pottery was found in the deep trench opened by M. de Morgan just above the painted one. But it was not possible for us to ascertain whether the painted and the unpainted pottery found in our trench were contemporary. The one nearly complete painted vase was a goblet of middle size. It was decorated with the figures of three poisonous snakes (fig. 4.1). There was no trace of copper in this section, but we found button-shaped seals of stone or bitumen with primitive engravings, and small clay figurines of animals, such as wild goats, dogs, rams, and birds; they were sometimes decorated with coloured dots. In this trench we came to the natural soil at a depth of 10 metres.

In an ancient well 5 metres deep and protected on the inside with big broad rings of earthenware, we found, bead by bead, a necklace of carnelian, agate, and other semi-precious stones, two small, nicely chiselled and well-finished figurines of lions, in carnelian, forming its chief ornaments. It was dated to the third dynasty of Ur, about 2300 B.C.

Discoveries resulting from systematic exploration of the Acropolis are too scanty to justify the employment of all our resources. During the last eight years, therefore, we have been exploring the southwest part of the ancient town (fig. 5). The mounds on this side are as high as the Acropolis was, *viz.*, about 25 metres above the level of the plain. They are separated from the latter by a ravine, probably the bed of

* The great cultural importance of this discovery will at once be apparent; it is the earliest evidence of the domestication of the horse.—EDITOR.

an ancient canal. The town-wall on this side measures about 500 metres in length. We have ascertained that on this side there were three ancient mounds, separated from one another by ravines, and connected by gates. Their diameter, measured at the height of approximately 12 metres from the level of the plain, is about 50 metres. They are artificial, *i.e.*, composed of the tombs, belonging to different periods, which are actually lying over one another in regular succession. Remains of buildings, perhaps small sanctuaries, wells, and potter's kilns are generally found in these cemeteries. During the Achaemenid period the tops of these mounds were very often levelled for building purposes, and this practice was continued up to the time of the Abbassides. A few Achaemenid ruins exist here ; they are the foundations of buildings in which a thick layer of gravel was employed, and a few square feet of a red-coloured pavement like that found in the palace of the Apadana.

There are many vestiges of the Sassanid epoch. We excavated long thick walls of raw bricks, and several small rooms. The importance of the houses is shown by the great number of drainage-wells sunk under the ground-floor. At the top of a well, big jars, at least three, are placed, their bottoms buried in the ground which forms the inner side of the well. They are placed in a slanting position, so that their mouths touch one another, exactly above the centre of the well ; a square brick with a sufficiently big hole is placed over the jars to facilitate the flow of water and the space left between the jars is filled in by raw bricks. We noticed that near the mouths of these wells children were buried in jars, or sometimes in small sarcophagi of burnt clay. Vases of burnt clay, with or without glaze, were found near these tombs ; they were bowls, water-flasks, and lamps. Near the skeletons there were beads of carnelian or glazed paste, small dolls of carved bones, and sometimes copper coins. Tombs of adults were almost absent on these mounds, as the Sassanid cemetery is situated outside the town.

Ruins of Arab construction, generally on the surface of the mounds, are very numerous. Old materials were always in demand and re-used for new buildings. We made plans of many such buildings, but not much of interest could be deduced from them. It is certain that the entrances of houses were often indicated by two columns built of large bricks, and coated with plaster, and the inner rooms were narrow ; the walls had a coating of plaster ; and on the façades coarse geometrical designs were often painted in black and red.

The houses had cellars, and sometimes flights of stairs leading down to a well. When one well was filled, it was necessary to sink another. Fragments of glazed and unglazed vases were found in them, some of which were of interest (fig. 6). On the summit of the mounds this level of the Arab period is about 4 metres thick, and in the space between two mounds it is more than 8 metres thick ; the level of the relatively recent ruins is still lower in the interior of the town. The burial-mounds of the southwestern border of the town formed a regular rampart round it. On their summit a fortification was erected, but the principal fortification of the town was the mounds themselves, formed in the course of several centuries by the superimposed ancestral graves.

During this season we explored two of these three cemeteries. Their upper level contains Neo-Babylonian tombs, and below them are those of the last Elamite epoch. These tombs differ from one another only in their grave-furniture ; otherwise they all have the same inner arrangement. The dead body was laid either on the bare ground, or in jars, or in vast vaults, constructed with raw or burnt bricks.

In the tombs were found vases (fig. 4.2) with or without glaze, sometimes good phials of moulded and coloured glass, copper implements, copper vases, copper arms, rings and amulets, a few trinkets, especially necklaces of carnelian beads, and figurines of burnt clay. Below these were tombs of the middle Elamite period, the burials being in jars and vaults (fig. 7). The latter were as a rule smaller than those mentioned above. Inscribed cuneiform tablets, mostly commercial contracts and school-exercises, were often deposited in them. Occasionally models of human heads, of unburnt clay, with traces of paint or gilding were found. They were perhaps placed in the vault at the time of the second inhumation as substitutes of missing or much disfigured heads. The man is represented with a straight nose, thin lips, and curled hair and beard, whereas the features of the woman are similar to those of small dolls of the same period. Nevertheless we must admit that as early as the twelfth century B.C. Elamite artists were skilled in reproducing human features almost life-size. In the first period of Elam, 1500 B.C., the vaults were generally for one person ; sarcophagi (fig. 8) of burnt clay, shaped like a bath-tub and covered with a lid, are sometimes found, whereas during the period from the twenty-fifth down to the fifteenth century they were regularly used. During this latter period we found no funeral vaults but only burial

jars. In the earlier period bodies of children were wrapped in matting and buried in the ground. Although clay tablets, seals and cylinders are found there is nothing by which to identify those buried in the tombs.

In one trench, which contained many tombs dating from the twenty-fifth to the fifteenth century B.C., were found balance-scales and weights which seem to indicate the burial of merchant-traders. The weights are of polished stones, hardened bitumen, limestone, hematite ; occasionally of quartz and agate. They are shaped like elongated ellipsoids, like ducks and sometimes like frogs, insects, or shells. Inscriptions or marks indicate their value ; the *mine*, *sicle* or *small mine*. Large weights are multiples of the *mine* or the *sicle* ; the small ones are multiples of the grain of corn or barley. There is no doubt that the ellipsoid form of the weights is derived from that of the grain. The duck-shaped Chaldean weights are very difficult to explain, but we find onomastic relations between the duck or the goose and the denomination of weights or the action of weighing, *e.g.*, the unit of weight in Persia is the *butman* and *but* means 'duck' in Arabic; *vaz* in Arabic means 'goose' and *vazana* means 'to weigh'. The *oque* is another unit of weight in the East, Iraq and Syria, and the word signifies ' goose '.

In this level was found an earthen pot filled with small ingots and bits of silver wire, silver bracelets, six pairs of earrings, and two heads of walking sticks. The bracelets are large open rings with several engraved notches. The earrings are shell-shaped, and have sockets for inserting semi-precious stones. The head of one of the sticks is like the knob of a round mace ; the other is shaped like the head and neck of a bird, with a tuft of feathers (fig. 9).

In the lower level we found rectangular pits used as graves—1 metre by 2 metres. The body was placed between two mats; vases of clay, copper, and arragonite were lying by the head and at the side of the body (fig. 10). Among the types of pottery, commonly found in this level, we may mention high, conical, and wide-mouthed vases, with a base (fig. 2). We had already found similar vases in tombs of the twenty-fifth century B.C. in the upper level, but these had flat handles on which a human bust was roughly indicated. Vases with similar handles are known from Kish, which M. Watelin, director of excavations, attributes to the Agade period (fig. 11). We attribute them to the fourth and fifth dynasties of Uruk. The copper vases have complicated forms and show that coppersmiths possessed a far

greater skill in the handling of the material at their disposal than the potters. Stone vases are represented only by coarse bowls. Copper arms include lance-heads (fig. 15.1), formed out of a single piece of metal with square sections, and fastened in the wooden shaft by means of a nail driven through it transversely (the shaft was further strengthened by winding around it a copper band); javelin heads with a central reinforcement; arrow-heads (fig. 15.10), made like javelin-heads or cut in a piece of metal, sometimes with two points; daggers

FIG. 2. TYPES OF POTTERY, SUSA

(fig. 16) with a small tongue fixed in the wooden handle with two rivets; blades of daggers, made of two thin pieces of metal covering a shaped piece of wood between them—these pieces were found joined together by the copper oxide; axes (fig. 15.11, 12, 14) with the edge parallel to the ring through which the handle passes (these rings are without decoration, although they are contemporaneous with the axes found at Nihavand and in Luristan). Copper mirrors were also found. The mirror is a round flat piece of copper, well polished, with a small tongue, by means of which it was fixed to a handle (fig. 15.6); on one side can be seen traces of a piece of matting, which was probably

PLATE I

Fig. 3. AWLS AND STILETTO MADE OF GAZELLE BONE, WITH PRIMITIVE DRAWINGS

facing p. 336

PLATE II

1

2

FIG. 4

(1) PAINTED VASE WITH FIGURES OF SNAKES, SUSA
(2) VASE OF MOULDED GLASS FROM TOMB AT SUSA

PLATE III

FIG. 5. SOUTHWEST VIEW OF THE RUINS OF SUSA

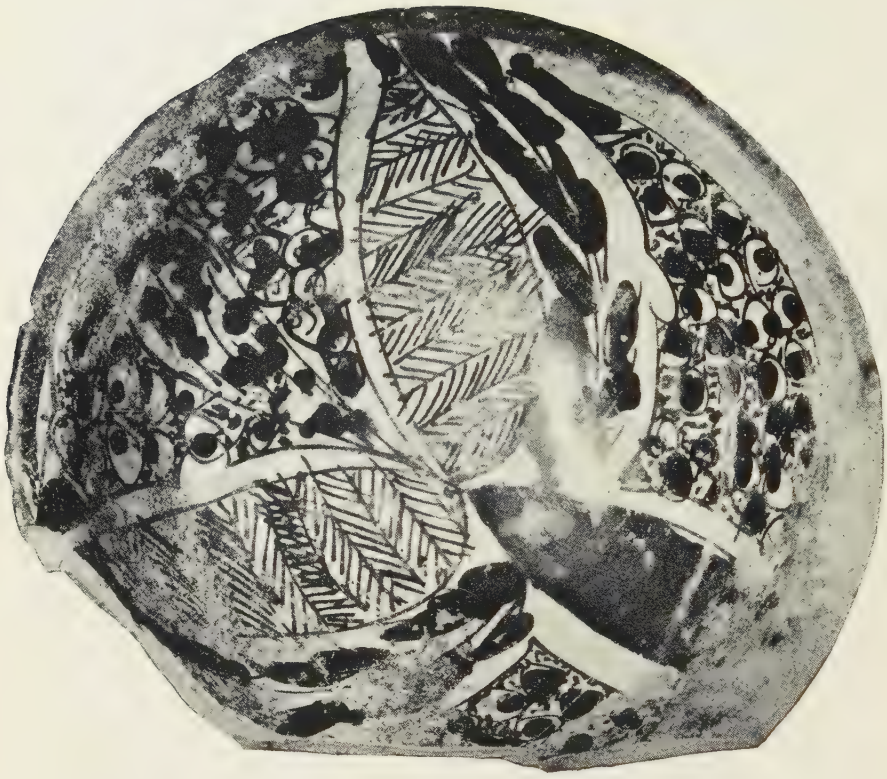

FIG. 6. DECORATED CUP, SAMARA WARE

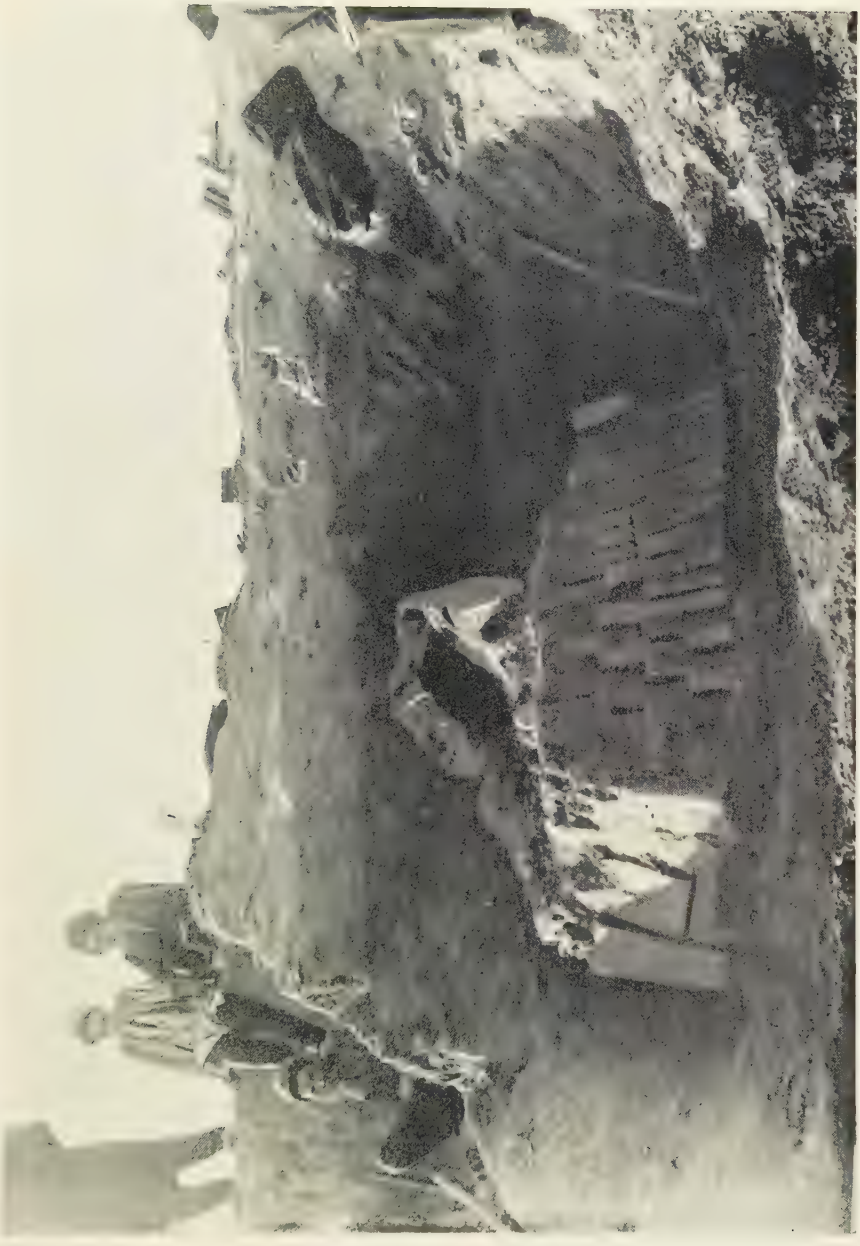

FIG. 7. BRICK-VAULT AT SUSA

FIG. 8. SARCOPHAGUS OF BURNT CLAY, SUSA

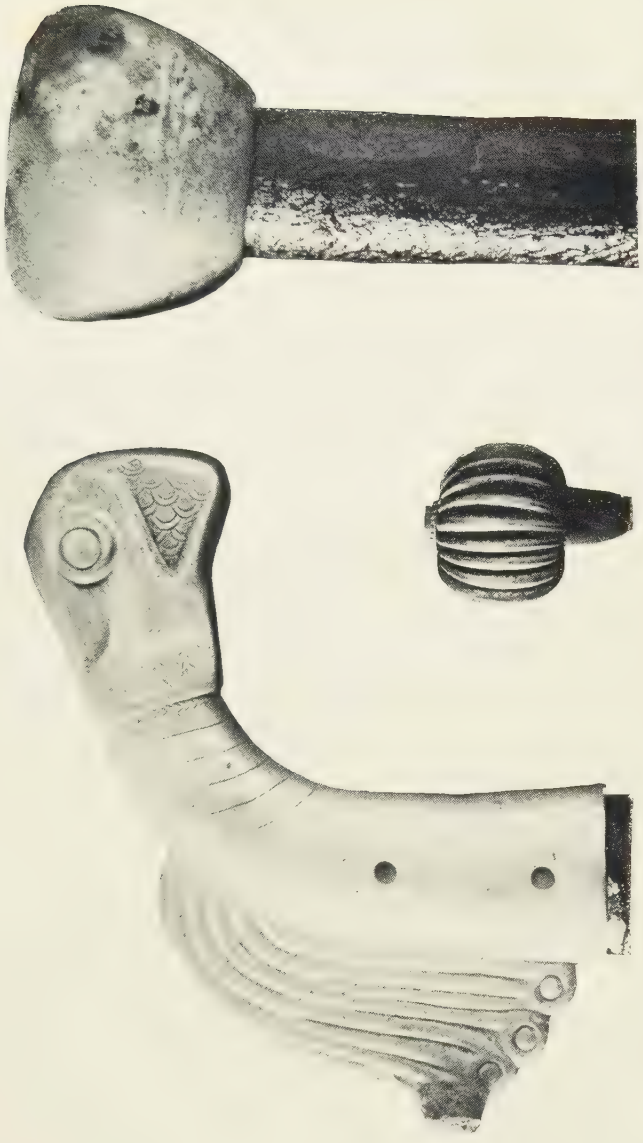

FIG. 9. HEADS OF WALKING STICKS AND EAR-RING (CENTRE), SUSA

FIG. 10. VESSELS OF CLAY, COPPER, AND ARRAGONITE PLACED WITH BURIAL, SUSA

FIG. 11. VASE FROM SUSA

FIG. 12. WOODEN SHIELD COVERED WITH HIDE STUDDED WITH COPPER NAILS, WITH SHORT COPPER ROD FOR HANDLE

Fig. 13. FUNERARY VASE, SUSA

Fig. 14. CAPITAL FROM ACHAEMENID PALACE, SUSA

FIG. 15. ARTICLES OF COPPER FOUND AT SUSA

1, Head of Lance. 2–5, Pins and needles. 6, Mirror. 7, Armlet. 8, Ring. 9, Silver amulet. 10, Arrowhead. 11–12, Axes. 13, Head of javelin. 15, Toilet requisites. 16, Pin. 17, Hoe

inserted in a wooden frame. There are also rings, earrings, and bracelets of copper ; and small horns of copper with the necessary toilet-implements made of the same metal (fig. 15.15). These horns were found in graves of both men and women. The toilet implements include small pins with pointed or blunt ends, tied together with a small copper ring, each for a special use ; a pair of pincers for plucking out hairs, needles for tattooing, and palettes for applying colours to the face—black and yellow colours were actually found in bivalve shells. There were many cylinder-seals in the graves, but no well-preserved examples owing to the humidity of the ground.

On another site there were graves with painted pottery, similar to that of the Acropolis and the Apadana. The disposition of the bodies and the grave-furniture was the same. The copper implements are the same, though there were copper ewers, with very long open spouts and wide mouths. For the first time shields, made of wood covered with hide fixed on its periphery with copper nails, were found. The nails have conical heads so closely driven in the wood that there was hardly any space between them. The shield (fig. 12) was oval and measured .77 metres by .68. The handle was strengthened by nailing a short copper rod to the wood, on the small axis of the oval. The wood had completely perished, leaving only a white trace with fibrous lines on the ground, whereas we could recognize the leather in the brownish mass which it had become. As the impressions left in the ground by the perishable material of the shield were very faint, we think that its covering in the middle was perhaps made of matting and leather; but the diameter of the nails, .025 to .03 metre, and the curve of the copper handle, show that the frame was about 4 centimetres thick. We may note here that in 1922 we found on the Apadana an object which we then supposed to be the outer copper rim of a wheel of a wooden car. The rim was in six parts, forming together a circle with the diameter of one metre ; every one of these parts had three copper projections like nails fixed to it by rivets ; by means of these projections the copper rim was fixed to the wood of the wheel. Bits of wood were still sticking in the groove of the rim and around the projections. A copper wire, curved outwards at its extremities like a hook, and having a ring tied with a thin wire in its middle, lay on the rim. At the time of the discovery we could think of no other purpose which this object could have served but that of the wheel of a small car, and we took the curved wire for a part of the harness.

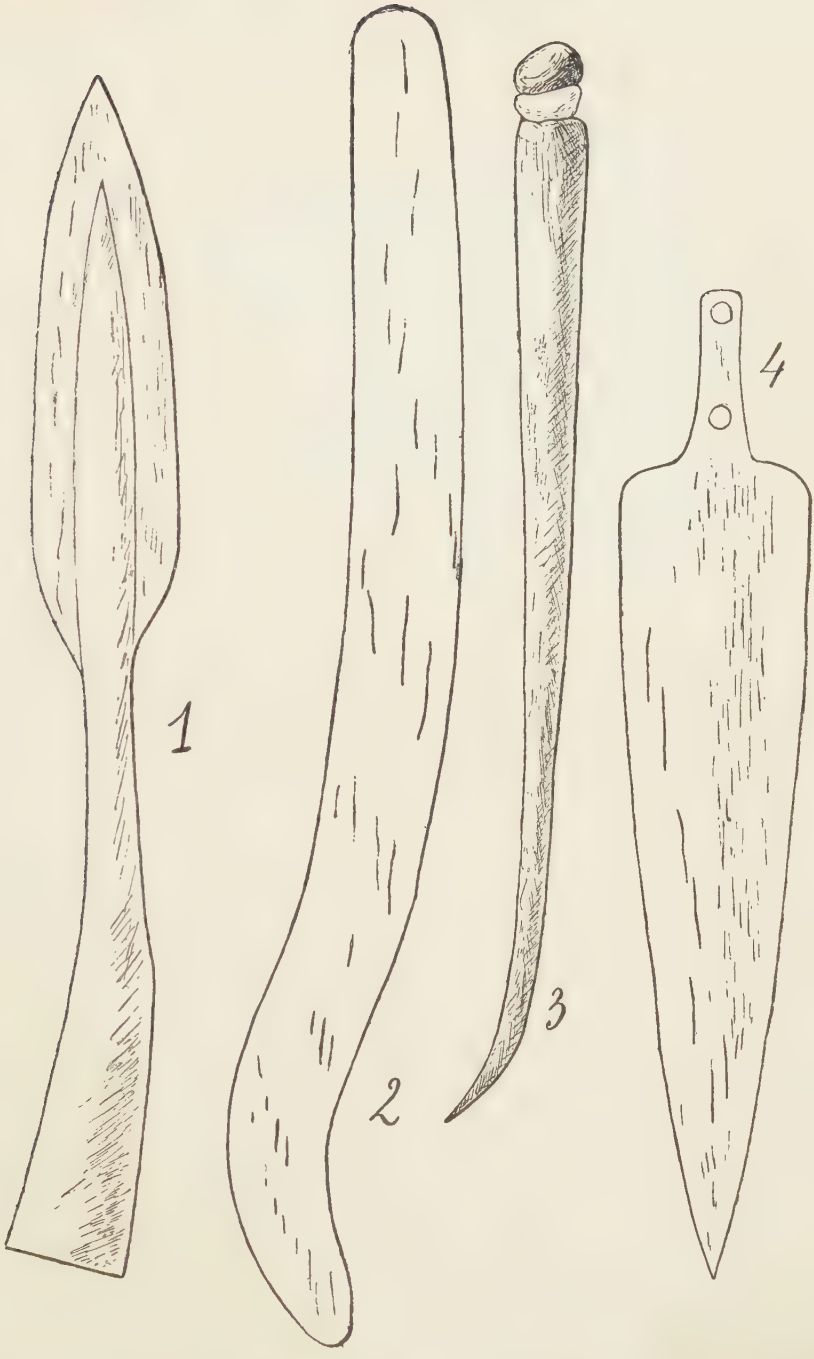

FIG. 16. 1, Head of javelin. 2, Blade of dagger. 3, Stiletto with lapis-lazuli head. 4, Dagger

We are now of opinion that this object also was a shield with its handle. This circular shield was of the twentieth century B.C. This season we found three shields like that described above.

The funerary ware of the graves of the lower level comprises big vessels of yellow clay, decorated with a twisted band and with a small protuberance on the shoulder, and painted pottery. This season we came across two new designs in the upper levels—found in tombs of the 20th century. They are small vases, one of which is decorated with a serpent, the other with a line of dots between two bands. Nevertheless this fact remains exceptional. Underneath this level in the tombs of the 23rd century there were vases with wide mouths and necks painted red. In still lower levels there is similar pottery : bowls of red clay decorated with undulated lines, and small bottles painted with geometrical designs. Such vases were found on the Apadana. In the graves referred to painted pottery is general ; the vessels are big craters with four knobs with lateral holes, conical vases without a base, and bowls with a conical base (fig. 13). Generally the colours are not fast and are easily washed away. They are often found sticking to the damp earth, when the vase has been removed from it. The colours are red, black, and white, and all three are often used on the same vase. The designs are generally geometrical, but figures of birds, eagles and ducks, and fish occur.

Below these graves nothing else was found but a few fragments of red slip-ware pottery, and below that the natural soil. This red ceramic is most probably analogous to Susa II, found up to now only on the Acropolis. Susa II *bis* would probably be contemporary with the Agade period, about 2700 B.C. From the results of our exploration of the Royal City we are not sure whether we should find anywhere else, except on the Acropolis, the still undiscovered tombs of the period intermediate between Susa I and 3000 B.C.

Since 1929 we have been investigating the summit of the ' Dungeon '. This season we worked intensively on this point and cleared it completely down to a depth of 2 metres. This work brought to light floors of Sassanid buildings, oriented south and north. The main western entrance was marked by two square bases of brick columns, on which a torus was discernible by traces of plaster. The external wall was on the very edge of the mound. The earth beneath the foundations of this wall was prevented from sliding by placing in a vertical position long Parthian jars filled with earth one on top of the other in two or three rows (according to the nature of the mound),

exactly as nowadays trunks of trees are employed for a similar purpose. The walls were completely destroyed. We observed, while digging 50 centimetres underneath the flooring, that the original plan of the building was modified five times. On the south side we cleared a square hall, about 8 metres long on each of its sides, with two entrances, one to the north, the other to the west. The breadth of the gates was marked by big stones, supporting the door-hinges. Three of these stones were originally bases of columns, whereas the fourth was a fragment of a cornice ; all these stones are evidently Achaemenid. They were placed in the holes destined to receive them, and the space between them and the sides of the hole was filled up with debris, among which were two fragments of marble figurines in the Parthian style. One of them is a bust with a well-preserved head. It is a rare find in Susa. The ceiling of the hall was supported by four columns. We continued our excavations 1.8 metre under the flooring, and discovered the foundations of thick walls of raw bricks, dividing the square in small rooms, which served perhaps as vaulted cellars of the original Parthian building. The Sassanid floorings were of burnt bricks, covered with a coating of plaster which was sometimes coloured red. On the floor were the two big bases of columns in limestone, with Greek graffiti, which were discovered by William Loftus in 1851. An entrance to a gate was marked by two capitals of Parthian columns, another by two small bases of Achaemenid date. One of these had trilingual inscriptions of Xerxes ; one big base of a column of the same period was inscribed by Artaxerxes Mnemon and was in the hall called by him ' Paradayadam '. The most curious debris of the Achaemenid palace, thus re-used, is the big capital of a column (fig. 14). Its upper part was square ; it had a round shaft, decorated with a ring of big knobs between two rows of beads, from which descended curvilinear flutings ; the lower part of this capital is missing. An aqueduct, roughly traced with big slabs of marble, gave us a few Greek inscriptions ; a rectangular slab was decorated on all four sides with low reliefs, unfortunately much damaged, representing a city-wall with battlements and turrets, and a gate on each of its two broad sides. Further, two fragments of limestone statues were found on the pavement. As they are very roughly executed, we suppose that they were probably coated with stucco and painted. One of them, about 70 centimetres high, represents a man, barefoot and standing ; he is clothed in a long tunic, a mantle covers his back ; the latter is held on the shoulders by a kind of

scarf, which, passing under the left shoulder and thence around the waist, comes again in front, where it is fixed on the right shoulder ; the right hand and the arm are raised in the gesture of benediction ; the left hand is closed, showing a small hole in the fist, in which an object was fixed by means of a metallic wire ; the head of the statue is missing. This statue looks, in fact, like that of a Christian saint, and it is quite possible that the building may have been a church, erected on the site of an old Seleucid temple or of the citadel. The other fragment is a torso of a similar statue, with the arm covered by a scarf thrown over the shoulder. These fragments seem to be Sassanid.

Beneath these floorings we discovered the foundation of the building. It is formed of walls of raw bricks, separated by narrow vertical drains filled up with gravel. The breadth of this filling varies between 20 and 40 centimetres, which appears to be too small to correspond to the inner walls ; still the plan they trace is that of rooms, passages, and entrances. We expected to find beneath these constructions of the later epoch remains of an Achaemenid fortress or palace, but we were disappointed, because on the level of the Sassanid or Parthian foundations we found burial jars and vaults of the middle age of Elam. Thus the 'Dungeon' also has proved to be a burial-mound.

We are also excavating in the suburbs of Susa, my assistant, Dr J. M. Unvala, directing the work. He was fortunate enough to find in a mound a funeral-vault of the Sassanid epoch. Access was by a pit, which at the time of the discovery was closed by large jars. Seven steps led from the pit to a short gallery, which served as entrance to the vault proper, 2 metres broad and 3 metres long ; its height was 2.5 metres. The vault was almost completely filled up with soft earth in which, besides bones of several individuals, was a good collection of glazed and unglazed ceramic of the Sassanid epoch, the date of the vault. There are about fifty vases, lamps, pitchers with one or two handles, and bowls, as well as beads of glazed paste, a couple of knives, and an iron dagger. There was also a sarcophagus of burnt clay without the lid, placed north to south; it contained three skulls and some bones. Similar funeral-vaults are still used in Persia by families of notables for second burials. It is probable that the vault in question had a similar purpose. It was, to use a Zoroastrian term, an *astodan* or ossuary. Of course, this does not prove that the owners of the vault were Zoroastrians ; it is again

doubtful whether they were Christians or Jews, as no particular religious emblem was discovered in it. If they were the followers of the Iranian religion, it seems that they were practising the Elamite burial customs, and that the exposure of the dead to beasts and birds of prey was not as common in Susa as it was in the north and east of Persia, and as is the custom of the Parsees of India. Moreover, it suggests that the people of Susa were not good Zoroastrians, and it is perhaps for this reason that they rose in rebellion against Shahpur II, which led to his destruction of the town.

Roman Gaul: a Review*

by Ian A. Richmond

Director of the British School at Rome

ABOUT one-third of this book consists of a general introduction to the study of Roman Gaul ; the rest is concerned with the Roman fortifications of the province ; and all was to have been produced by Déchelette himself, but, after his untimely death in battle, it passed to Albert Grenier, Professeur d'Antiquités nationales et rhenanes à la Faculté des Lettres de Strasbourg. The choice is significant, for this is the first general publication by a French specialist on a Gaul which includes the Germanies, and it was therefore not beyond hope that pride and emulation would inspire an achievement equal to those of Espérandieu and Gsell, not to mention the German treatments which had already preceded it. But, from the start, cheapness has blighted the presentation, with that surety of touch in which Parisian publishers excel ; and the editors have not chosen an author with those abilities in *vulgarization* which make French treatments, at their best, so very stimulating. The few scintillating remarks which brighten these pages are usually false lights, while the treatment as a whole lacks both the broad basis derived from a knowledge of general works, and the detailed acquaintance with the monuments and their analogies which is indispensable in a treatise upon fortification. It is amazing that anyone should now write upon Roman Gaul and omit from his bibliography Mommsen, Egger, Dragendorff, Folzer, Leitzmann, Loeschcke, Krencker, Kruger, Knorr, Mélida, Macdonald, Parvân, Promis, Rostovtseff, Schulten and Schramm. The memory of Déchelette deserved better than this *regnum Galliarum* in scholarship.

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* Manuel d'archéologie préhistorique celtique et gallo-romaine (Joseph Déchelette). *Volume* v; Archéologie gallo-romaine, *par* Albert Grenier ; *préface de* Camille Jullian. *Première partie.* Généralités—Travaux militaires. *Editions A. Picard, Paris*, 1931. *pp.* i–v, 1–619, with 232 *figs.* and 3 *folding-maps.* Price 75 to 105 francs, according to binding.

The general introduction thus misses the points which have been for some time interesting the students of the wider *imperium*. Scanty is the treatment given to the questions of early-Roman penetration and late-Gallic survivals. Yet the one could have been stated succinctly by quoting from Cicero and Caesar; while the other is illustrated, linguistically, by the La Graufesenque *graffiti*, Jerome and Sidonius Apollinaris, and, artistically, by Espérandieu, as has already been attractively sketched by Collingwood. For in art emerges the native influence, sought in vain by M. Grenier, even in Narbonensis, as the sculptures of Vienne and St. Remy show. From the treatment of the economic problem one might conclude that pottery was the only Gallic industry. The question of water-transport is omitted. Nor is any significance attached to Sacrovir's revolt as an after-effect of the costly Augustan imposition of civilization, of which the character alone merits a special treatise. As for the survival of separatism, Haverfield's remarks on Brittany are a wholesome corrective to the idea that Breton individualism was less strong in Roman times than now, whatever Lugdunum or Paris might think. In agriculture, the opinion that the Romans found Gaul *en majeure partie amenagée pour l'agriculture* is altogether premature; and when a good distribution-map comes it will probably have in store surprises as striking as those in Britain, which might themselves have trained M. Grenier in caution. The touches on fourth-century life are clever, but shallow. It was hardly the pressure of the age that governed the depth of a sculptor's chiselling, and the appearance of haste in late-Roman building often connotes a greater mastery of material and improved technique rather than decadence. The generalizations end, however, with a more specialized theme. Gallic itineraries and epigraphical collections are rich in relics of the cantonal boundaries, and we welcome the connexion of actual boundary stones with the manuscript-drawings of the *agrimensores*. The validity of the equation *pagus*=*pays* is wisely left open; but that of *pagus*=clan was worth fuller development. The association of frontier-marks with the nymphs also raises interesting points on other frontiers.

Voltaire's observation on Caesar which introduces military fortifications, is one of the bright spots in the book; and it is followed by a warning that Caesar's work can only be certainly identified at Mauchamp, Gergovia, Alesia and Puy d'Issolu. Mauchamp provides a fine series of *claviculae*, all internal, though it is difficult to guess this from figure 12. For these and other details, we depend upon

Napoleon III, who seems to have known nothing of the *titulus* as a distinctive test for Roman work. But the omission of the fine long one at Urmitz is less excusable to-day ; and even Napoleon's diagrams outclass those of Colin. Only that of Fornerot begins to reach the standard of field-work which makes Glozelianism impossible. In detail, the Scottish analogies for *lilia* and calthrops merit quotation, and the confession that Schulten's *Numantia* was unavailable sheds an unhappy light upon the equipment of Strasbourg for Rhenanian studies ; a short trip across the frontier would have secured a copy for M. Grenier.

The next section deals with early garrisons in the Gallic interior, and misses out the *clades Lolliana* in the transition. Here enters the difficult question of what inferences may be drawn as to military occupation from the tombstones of soldiers, and we incline to accept Ritterling's view about those at Aunay. To supply the ever-missing analogies, the auxiliaries at Eysses, and the position, closely resemble Cirencester, while the site at Néris, in its enviable complexity, smacks of Inchtuthill, Hod Hill, or Haltern. On the significance of these sites our author is wisely reticent. But he classifies with success a distinctive set of road-patrol quarters northeast of Dijon (where the post lay in the suburb of La Noue), and we could wish that the map (fig. 35) had marked all that the text mentions. Many of these sites would yield a fort like that of Arlaines in the Soissonais, where were elaborate stone buildings of two periods at least, and relics of a first-century occupation, presumably earlier still. This leads us to the Rhine frontier, of which a worthless sketch is given, distinguishing neither types nor history, and based only upon Xanten, Saalburg and Villenhaus. Such is the effect in post-war Rhenania of the Römisch-Germanische Kommission. The level of the next section, dealing with pseudo-Roman entrenchments, is higher.

The treatment of first-century town-walls is disappointing. Almost without exception, the illustrations are in the worst tradition of the provincial antiquary. The exceptions are borrowed from Wheeler and Formigé, the latter being incorrect. The account of Marseilles cries aloud for a plan ; and the wooden swallow-tail clamps in its wall are not necessarily pre-Roman, for there were plenty in the Augustan *Rostra*. Narbonne, Béziers and Toulouse were not worth inclusion. The account of Arles depends upon Wheeler, and is therefore good, but its implications are not fully appreciated in dealing either with Aix or Fréjus. Indeed, the section upon the latter

town is very deficient. The arrangements for closing the port, copied from Donnadieu, are largely fanciful. The fact that the aqueduct modified the northern towers, originally full circles, is not appreciated. Wheeler noted, correctly enough, that the plan of the Porte des Gaules by Formigé was wrong. But no one has published the surviving scraps of parapet, north of the Place Agricola and in the garden of the Villa Léoncine.

The plan of Nimes is a schoolboy tracing of Blanchet's bad diagram, only equalled by that of Lyon (fig. 84). Grenier rightly draws attention to the Porte de France, but the houses are not so close that we cannot see there was no rear court. The grilles at the Porte d'Eaux are also worth note, and a parallel for the inclusion of the Circus in the Wall is offered by Aquileia. The next monument, the Tourmagne, is illustrated by a plan of the upper level, derived from Espérandieu. But this is inaccurate ; for the staircase runs round a square well, taking the place of one of the semicircular earth-chambers ; and these in turn are ranged round a central earth-chamber which has an elliptical plan and crowns the huge earth-centred elliptical vault of the lower floor, inaccessible in Roman days. This type of construction and planning is not earlier than Augustus ; and since even the upper level is reached only from the additional but similarly built ramp connected with the city-wall, we must assume that this elaborate structure was designed as part of the wall from the first, and served as a great Pharos-like tower, not impossibly inspired from Egypt, with which the foundation of this *colonia* is connected.

At Vienne, Italian analogies for gates set in a re-entrant would have been worth quoting, and a knowledge of them would have prevented any comparison of the Roman *coloniae* in Gaul with *castra*. The wall of Raurica, resembling that of Avenches, can hardly date to the third century. At Autun, the pilaster-caps of Porte S. André were not robbed from another building, but were carved on the spot and never finished, while it might have been noted that, as at Aosta, the stone in each storey is different, though without prejudice to their contemporaneity. The plan of Cologne is less regular than is pretended, and the problems less simple. Without accepting outright the dating to Gallienus, favoured in Germany, we cannot accept that to Claudius, now proposed here. For example, the strong resemblance of the Pfaffenthor to the west gate of York suggests a second-century date, perhaps after the invasions of 166 ; and Grenier fails to note

that the foundations of this gate differ from those of the wall elsewhere. On the other hand, the gate in Martinstrasse, with its analogies in Rome, might well belong to Gallienus. Thus, a complicated history, involving many restorations, as at Strasbourg, will no doubt explain these discrepancies better than an assignation of the whole circuit to any one period. At Avenches, the Porte de l'Est is closer to Aquileia, in type and date, than to Megalopolis, and its towers seem demanded from the first, fitting well enough with the Augustan analogies from Italy and the Adriatic.

The fortresses of the Late Empire present an entirely different problem ; and Collingwood has recently pointed out the important place in their evolution taken by the Saxon Shore fortresses of Britain, a point quite easily tested by anyone who has the basic treatments of Anthes or Stähelin before him. But no conclusions are drawn about type, and the illustrations used are mostly bad copies of earlier works ; for example, the comparison of Kaiser-Augst with Boppard is robbed of its significance by the erroneous plan of the former. On and beyond the Rhine, knowledge grows dim. Altrip is a quadrilateral, not a hexagon, and goes with Kožila in Yugo-Slavia. The analogy for Irgenhausen is Schaan, and, whatever is true in the East, neither fortress is typical of Diocletian in the West. The essential Rhineland type is the round-towered fortress like Andernach, Junkerath and Anse-sur-Sâone, and its ramifications are of great interest. Much less common are the curious fortlets of Zurzach, which match Carnarvon and Caer Gybi as good examples of bridgehead or harbour castles. Another tempting Romano-British analogy is that of Horncastle, Caistor-on-the-Wold or Malton, with Cassel on the Belgic coast. Strasbourg raises our hopes, for we reach the town in which the author teaches, and whose walls he might therefore be expected to know. But the description is confused, the plan is ineffective compared with that of Anthes, while the ditches are treated without diagrams and disconnected from their analogies. Yet this is clearly among the most important complex fortifications of the West, comparable with York. We disentangle, as best we may, a first-century wall, with buttresses resembling those of Caerwent, with which should be connected in turn Avenches, Raurica and Aosta (where, *pace* Promis, no extension of the rampart-walk is in question). We long for an illustration of the late-Roman timber-revetted moat, akin to Alzei and preparing us for the stone-built moat of Constantinople. Dijon, thanks to M. Fyot, reaches a higher standard. But

the treatment of the towns as a whole owes everything to Blanchet, and adds nothing to his interpretation, of which the short-comings are already well known.

Interesting are the less regular fortifications of the countryside. The masonry of *Cora*, près de S. Moré, differs as sharply from that of the Belgic fortresses as Carisbrooke does from the forts of the Saxon Shore. The double foundations of Le Héraple remind us of Cardiff or Scarborough, and need not stand for a change in plan. Why Tournus should be compared with Alzei, rather than Andernach, passes comprehension, and it seems doubtful whether Senon is a fortress at all. Saint Laurent-sur-Othain, on the other hand, is highly interesting, since it is dated to the third quarter of the third century, and is simpler in type than the Saxon Shore forts. Larga is either a fortified villa or a commissariat-depot ; and has nothing to do with Jublains, where an earthwork, resembling closely the first Saxon Shore fort at Richborough, was followed by a *burgus*, of a type between Harlach and Schaan ; and this in turn was protected, perhaps later still, by a normal fortress-wall. Of two tiny baths, one goes with the earthwork, and one comes after it. Larçay and Rubricaire may belong to the same class, but the description is too scanty, and it must be remembered that Swoboda claimed the former as an *Eckrisaliten-villa*. Interesting also are the late entrenchments, represented by the great enclosure of Bitburg, which might indeed be a park or domain-land. But the earlier defensive earthwork in the same district, of which Tacitus speaks, is omitted (Tac. *Hist.* IV, 37).

In construction, the parapets at Saintes and at Trier may be noted, while the wooden cradling at Strasbourg is in some measure paralleled at Pevensey. But the section on this detailed material falls far short of the possibilities. Nothing whatever is said of gang-work, though Senlis, for example, offers abundant proofs of its presence.

The chapter on gates seeks parallels in Rome, but unhappily ; for Aurelian's gates have nothing in common with Aosta, nor was the Castel S. Angelo enclosed by Aurelian in the same way as the Anfiteatro Castrense. The fate of Porte de Mars at Périgueux is equalled only by that of Lincoln's west gate. The gate which masks the decorative Porte S. Marcel at Die is not medieval, but late-Roman, with analogies at Périgueux and Regensburg for decoration, and at Barcelona for type. The descriptions of the monumental gates at Langres, Besançon and Reims are rendered useless for want of plans, and the theme which they inspire, namely, the relation of gates to

Triumphal Arches, is handled without reference to the early examples, and without historic sense; for the general connexion of Gallic Arches with Caesar, Tiberius and Marcus Aurelius is clear, while that with Hadrian, Severus and Caracalla is not.

The book closes with some general conclusions. These are as weak as might be expected in a survey so wanting in guiding principles. Vaguely and too late, the author begins to discern the presence of such principles in the mass of material which he has presented in so indigestible a form; that military engineers, like Cleodamus and Athenaeus, were behind the schemes; that striking uniformity emerges here and there; that some towns or forts are better built than others. But no attempt is made, even at the last hour, to connect these deductions with type or with history, and sooner or later the book must be re-written from this point of view.

PLATE I

HOUSESTEADS: NORTH MILECASTLE FROM THE SOUTH

Ph. Gibson and Son, Hexham

facing p. 351

Ancient Cultivations at Housesteads, Northumberland

by W. Percy Hedley

THE Roman Fort of Borcovicium at Housesteads in Northumberland should need no introduction to anyone interested in archaeology. During the last year it has been brought into great prominence by being presented to the Nation by Mr John Maurice Clayton, and through its close proximity to the portion of Hadrian's Wall recently threatened by quarrying operations.

The fort at Housesteads was one of the earliest to be examined by British antiquaries, but although it has received so much attention its environs have been almost entirely disregarded. On both sides of the Military Way leading out of the west gateway was an extensive civil settlement, and traces of buildings can be seen on the south side of the fort. The hillside sloping to the southward is covered with the remains of early cultivations. These have generally been accepted as of Romano-British age. There are, however, two distinct systems of early cultivation. To the southwest of the fort there is a series of terraces running along the hillside, but on the southeast of the fort there are lynchets running north and south at regular intervals up and down the hillside. From the hill to the south of Housesteads it can be clearly seen that where there is terrace cultivation it has been superimposed on the earlier system of lynchets, and this is also shown in air photographs.

No attempt as yet has been made to differentiate between these types of cultivations at Housesteads, and no date has been suggested for them. There is a third type of cultivation which can be seen on the east side of the fort. This is the ordinary 'rig and furrow' system which was in practice until the middle of last century. From similar cultivation in other parts of Northumberland we can date this to the period 1800–1850. The Napoleonic Wars caused the prices of corn to rise to an enormous figure, thus encouraging cultivation at altitudes which now would be considered impracticable.

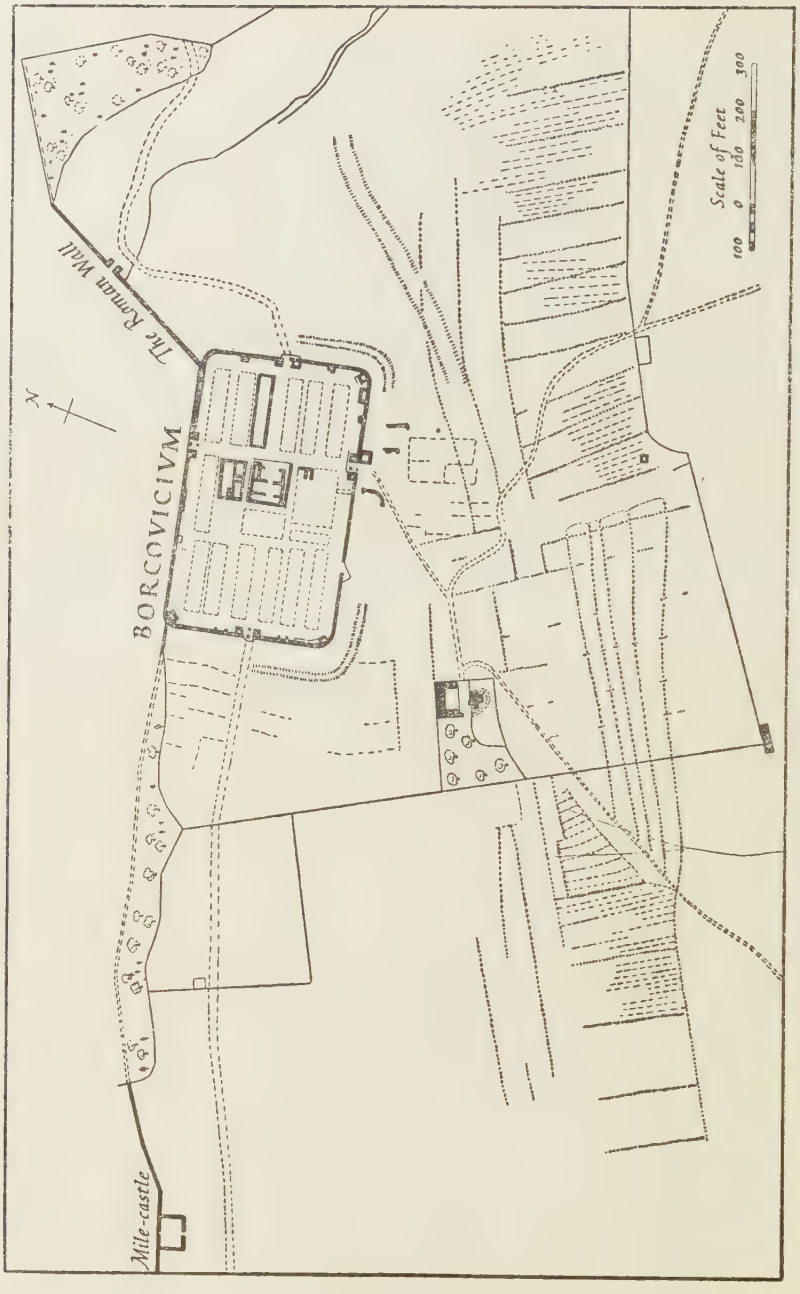


FIG. 1. CULTIVATION TERRACES, HOUSESTEADS, NORTHUMBERLAND

HOUSESTEADS

By permission of the Director Gener

ERLAND
vey, Crown copyright reserved

facing p. 352

ANCIENT CULTIVATIONS AT HOUSESTEADS

The study of early cultivation has been stimulated in recent years by Air-Survey. It has been shown that there are in the South of England two systems of cultivation, the earlier Celtic, and the later Saxon. It is not intended here to reproduce the arguments brought forward in proof. The continued use of Air-Survey as an aid to Archaeology has shown us that the Celtic system of field cultivation is widely spread over the South of England. Until recently no air-survey work had been carried out in the North. The writer flew along the line of the Roman Wall last year, and examined carefully from the air the lynchets at Housesteads. In October 1930 the Air Ministry gave instructions for a complete aerial survey of the Wall. The north and south lynchets at Housesteads are clearly shown on the air photographs, whilst the terraces are better defined by photographs taken on the ground from the hill to the south. From here it can be clearly seen that where there is terrace cultivation it has been superimposed on the earlier system of up-and-down lynchets. On the steeper slopes between each terrace and spaced at very regular intervals are heaps of stones and boulders, and these heaps occur in almost every case immediately above each other, showing the lines of the original up-and-down lynchets. Moreover the Vallum has been destroyed by the terrace-cultivation (fig. 1). The terrace-cultivation is therefore later than the Vallum and later than the up-and-down lynchets. These lynchets are formed of rough boulders taken off the cultivated strips and in no case is there any trace of true walling.

In the Border districts of Northumberland, a Celtic system of land cultivation persisted down to the 18th century. In Redesdale, which presents practically no trace of Saxon settlement and no common-field system such as prevailed in the lower valleys, a Celtic system of land tenure, similar to gavelkind, was almost universal. In one of the most outlying areas of Redesdale, at Silloans, the early field-system was at right angles to the valley, and the lynchets run up and down the hillside. This is shown on a plan of 1840 now reproduced (fig. 2). If therefore the up-and-down lynchets are found in Celtic districts, where there is little or no trace of Saxon influence, it is reasonable to assume that the lynchets of this type at Housesteads are Romano-British in age.

As already stated the Saxon settlement did not penetrate into the higher valleys of Northumberland. In the South Tyne valley, which is the nearest to Housesteads, there is only one Saxon -ton (Thorngrafton) in the place-names, and most of the place-names are Celtic

in character (*e.g.*, Plenmeller, Haltwhistle, Melkridge, Allerwash). There is no certain Saxon settlement within two miles of Housesteads. In the South of England terrace cultivation (strip lynchets) is shown to be Saxon, but we have no evidence of how late these were in use, and up to what date they continued to be made. We cannot imagine Saxon settlers travelling two miles from home in order to grow corn at 800 ft. above sea level, when they had excellent land for the purpose at half this elevation within a few hundred yards of their villages.

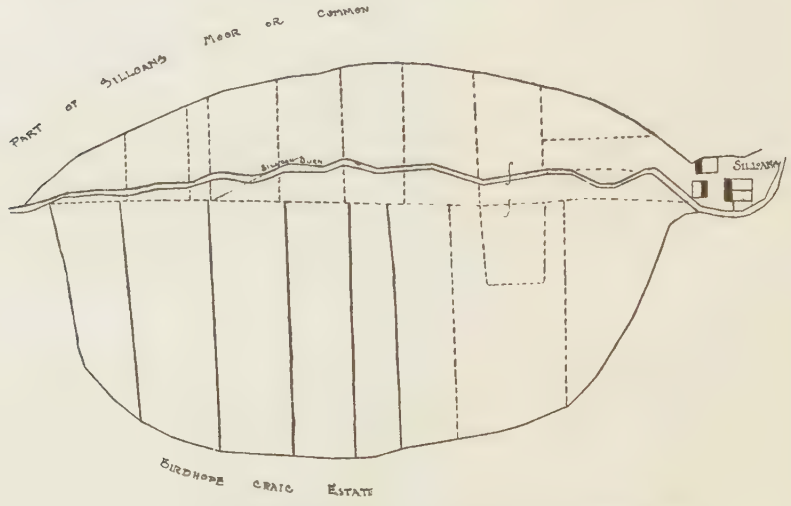


FIG. 2. CULTIVATION-PLOTS AT SILLOANS, NORTHUMBERLAND

The cultivation-terraces at Housesteads, although Saxon in character, can hardly have been made until the 11th century at earliest, and may perhaps be as late as the 15th century.

In conclusion I have to acknowledge my indebtedness to Mr G. H. Askew, F.S.A. SCOT., for considerable assistance in the making of the survey.

Notes and News

A NEW ROMAN ROAD IN SOUTH LINCOLNSHIRE

Mr C. W. Phillips writes :—

The problem of the Roman road system of the parts of Kesteven (southwest Lincolnshire) has long been troubled by the fact that the two main arteries running north and south—the Ermine Street and King Street—have been assumed to join at Lincoln, though this means that they proceed for 17 miles or more converging the whole way from an initial separation of only 5 miles.

The line of Ermine Street from the point where it crosses the Nene at Castor, Northants, to Lincoln has never been in doubt, forming as it does one of the best preserved stretches of Roman road in the country ; but the case of King Street has never been so clear.

This road sets off almost due north from Castor, crossing the Welland at Lolham Bridges, leaving Market Deeping to the east, and running dead straight to the crossing of the Glen at Katesbridge in the parish of Baston. The next three miles to Bourne are not well defined, but the road runs parallel to the Car Dyke, and is never separated from it by much more than a furlong. Passing northwards from Bourne is the ancient trackway known as Mareham Lane, which follows the edge of the rising ground on the verge of the Fen to Sleaford, and crosses the Slea a little to the east of the town by a ford which was in use till the canalization of the river in 1792. Mareham Lane was certainly an important line of communication as long ago as the early Middle Ages, for the ancient fair of Stow Green Hill held on a small common south of the intersection of the Lane with the Salt Way at Threekingham has had a continuous existence since the 11th century. Roman finds have been made along its line at Dunsby, Sempringham, and Threekingham, but they have been fairly plentiful at Sleaford alone. The Lane is probably a Romanized native trackway.

North of Sleaford no satisfactory evidence of Roman use or construction has ever been forthcoming for any of the roads which run through to Lincoln. The direct road from Sleaford to Lincoln

looks hopeful at first, but it does not conform to the canons of the Roman road, while its nearness to the Ermine Street during the whole of the 17 miles to Lincoln makes its claims still more unlikely. The Roman finds which have been made casually at Washingborough, Potter Hanworth, Nocton, Timberland, Scopwick, and Digby relate far more probably to the Car Dyke than to any road, though it is quite likely that there was a native track connecting these sites and ending at Lincoln.

The solution of the course taken by King Street north of Bourne is that it passes northwestwards through Cawthorpe, Hanthorpe, Stainfield, Lenton, Sapperton, and Heydour to Ancaster, the Roman CAVSENNAE.

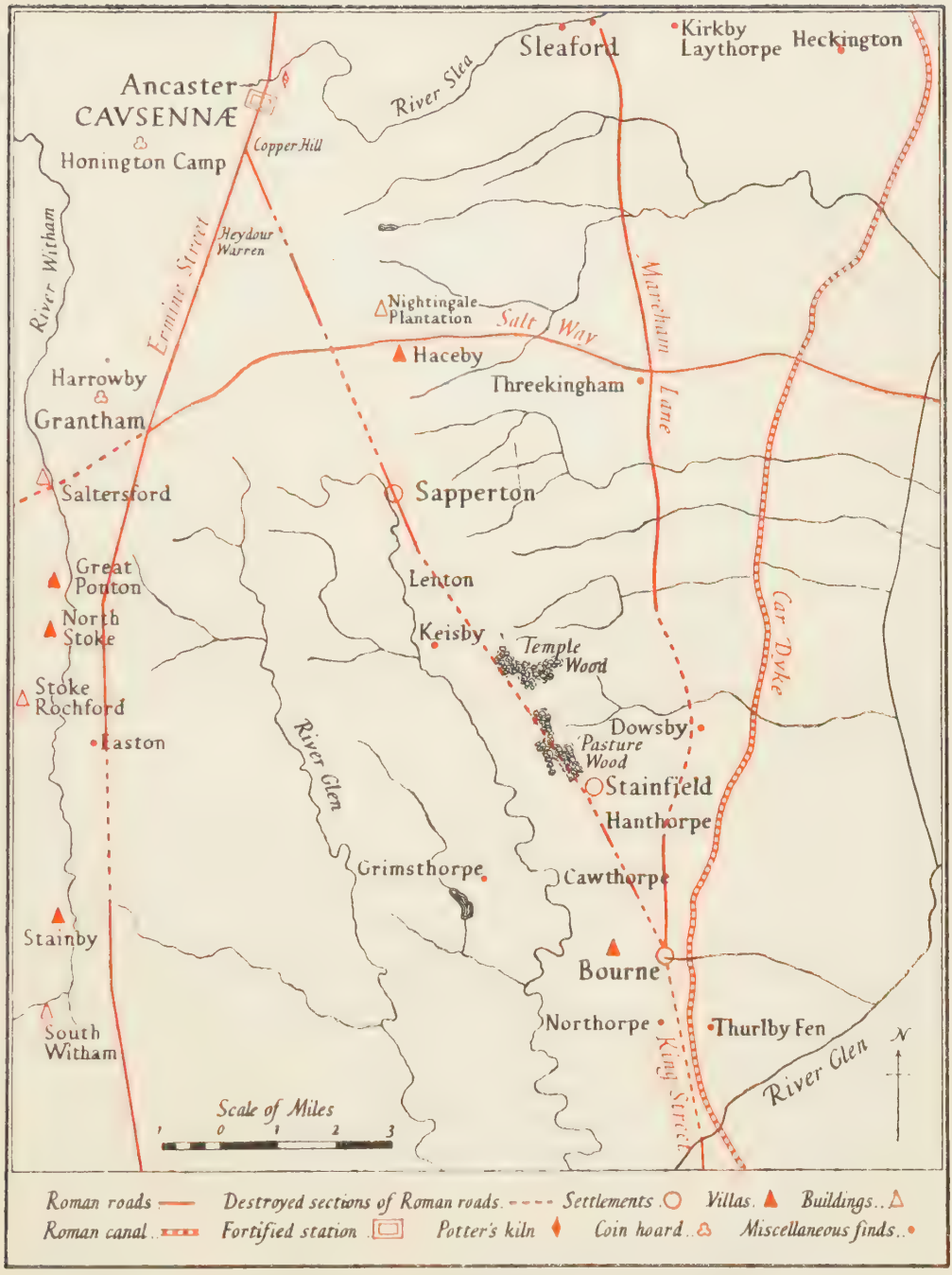
The writer was first led towards this conclusion by the considerable number of Roman remains which have been found during the last century at Sapperton and Stainfield, and the remarkable directness of the road which diverges southeastward in their direction from the Ermine Street on Copper Hill, just south of Ancaster. A careful study of the 6-inch Ordnance maps soon revealed the course of the road through a marked alignment of modern roads, parish boundaries, the edges of woodlands, and small disjointed scraps of lane which now serve no useful purpose.

It will be described best by taking the line from Bourne and working northwestwards to Ancaster.

There is little doubt that there was a small Roman settlement at Bourne round the great spring which gives the town its name, and on the sites of the castle and railway station.[1] A tesselated pavement was also found at Park Farm to the west of the town round about the year 1776.

The exact line of the new road out of Bourne cannot be certainly determined on the surface, but it is probably fairly well represented by a line drawn from Bourne railway station to the western boundaries of the orchards on the west side of the village street of Cawthorpe. The short northwest-trending piece of road west of Cawthorpe Hall is a surviving section, but at the fork of Wood Lane the line takes to the fields and is preserved by the short section of the parish boundary of Edenham at the northeast extremity of Fox Wood. The line is almost at once taken up again by Clipseygap Lane and Paddock Lane,

[1] Edward Trollope, *Sleaford and the Wapentakes of Flaxwell and Aswardhurn*. London and Sleaford, 1871, p. 36.



TO SHOW COURSE OF THE NEWLY DISCOVERED ROMAN ROAD FROM BOURNE TO ANCASTER

two otherwise meaningless stretches of green lane to the southwest of Hanthorpe, and it then passes west of Stainfield across Hangman's Lane, and next coincides with the western boundary of the parish of Dunsby, which is also the boundary of Thorny Wood. Just before crossing Hangman's Lane the line skirts on the west side a close called Blackfield, which has been known as the site of a Roman settlement since Stukeley's time. The colour of the field contrasts vigorously with the red soil of the surrounding land, and there are many traces of foundations both here and in the next field to the south. Continuing, the road forms the western boundary of a group of woodlands on the west side of the parishes of Dunsby and Kirkby Underwood, and, clearing Temple Wood, it passes east of Keisby and Lenton, the line being preserved in many places by modern hedgebanks, till it strikes into the line of modern road which runs through the hamlet of Hanby and closely parallel to the western boundary of the parish of Sapperton.

Near the hamlet of Keisby a small piece of Roman votive statuary was found many years ago. It is now preserved in Lenton church. In the southwest part of Sapperton parish the road runs through the site of a considerable Roman settlement which was first revealed in 1824. A manuscript record made by Mr John Cragg of Threekingham gives an account of the discovery of the site which lies ' in a valley on both sides the boundary line by Sapperton ', and ' runs up the high ground of Sapperton beyond a spring all over pieces of small brick tesserae of pavements '. I am indebted to Captain Cragg of Threekingham for being allowed to inspect this record. North of Sapperton the road follows the modern lane called Long Hollow and Short Hollow and then crosses the Salt Way about a mile and a quarter west of the site of the Roman villa found by the roadside at Haceby in 1818[2], and close to Nightingale Plantation where traces of Roman building have also been found. From the Salt Way to Copper Hill above Ancaster, where the road joins the Ermine Street, the line nearly coincides with modern roads most of the way. The chief variation is through the abandoned quarries at Heydour Warren where the present road bends to the east, and the ridge of the Roman road may be seen coming across the ploughland from Quarry Farm to join the line of the modern road where it straightens out for the final run to Copper Hill.

[2] *Gentleman's Magazine*, 1818, part I, 634; part II, 38, 39.

SCULPTURED STONE, ISLE OF MAN

facing p. 359

Thus King Street, instead of extending northwards to Sleaford, runs from Bourne to Ancaster to rejoin the Ermine Street from which it parted at Castor. At no point between Bourne and Ancaster does any impressive agger remain of the kind which makes both Ermine Street and the southern part of King Street so striking, but the few traces which remain at Heydour Warren, Lenton, and Stainfield, coupled with the regularity of the line and the passage through two Romano-British villages make its Roman character undoubted. This does not deprive Mareham Lane of importance, but it makes a continuation from Sleaford to Lincoln very improbable, and strengthens the idea that the Lane is part of a route from the south to the Lincolnshire Wolds which passed from Sleaford, through Anwick, North Kyme, and Billinghay, crossing the Witham near the present Tattershall Bridge.

Further investigation will be necessary before anything can be said about the date of this road, but the final destination of King Street may now be considered settled.*

A SCULPTURED STONE FROM MAN

The following note is contributed by the Isle of Man Official Information Department :—

There is no country in the world which is so rich in Runic Monuments as Man Island, but a new find has been made in that land of remarkable archaeological remains. The new discovery is a large humanly-smoothed stone with incised figures of animals which was found at the base of an early Christian burial-mound near Ramsey, recently excavated by Messrs J. R. Bruce and William Cubbon on behalf of the Manx Museum.

The style of the drawings suggests a close similarity with Scandinavian work of the Bronze Age; but the strange thing is that no link with the Northern peoples of so early a date as the Bronze Age has hitherto been recognized in the British Isles.

But how was it that a Pagan monument came into the floor of a Christian grave-mound ? It is of interest to note that before laying the stone in position the Christians deliberately hacked off a portion on which were figures, and in order to destroy its magic and its evil properties they Christianized it by carving a cross upon its face.

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*The necessary alterations have been made on the Ordnance Survey Map of Roman Britain.—EDITOR.

The Abbé Breuil and Mr P. M. C. Kermode, the Curator of the Manx Museum, agree that the stone is probably a ' monument of the Early Bronze Age, comparable with certain Scandinavian rock-engravings '.

Messrs Bruce and Cubbon state, in an illustrated report on the excavation, that the ' Cronk yn How Stone ', as it is termed, ' is a monument unique in Britain ; that its discovery points to the importance of the Isle of Man as a central position in the path of invading peoples at an earlier date than had hitherto been recognized, and throws new light on the relations of the Scandinavian people in the Bronze Age with the British Isles '.

The engraved stone, illustrated opposite, is over 5 feet in length by 10 inches in width. It is in the Manx Museum and has been examined by many archaeologists, who all declare that there is nothing like it in the British Isles. Professor R. A. S. Macalister, the Professor of Celtic Archaeology in the Dublin University, who examined the stone recently, considers it to be of surpassing interest.

PALAEOLITHIC MAN IN IRELAND

Mr Seán P. ÓRíordáin writes :—

Recent excavations conducted in Ireland by the Bristol Spelaeological Society, assisted by the Royal Irish Academy, led to results so important as to justify a further short note on their implications. Since the work is exhaustively reported on in the *Proceedings* of the Bristol Spelaeological Society for 1928 it is not proposed to give more than a brief summary of the conclusions to which the evidence points.

The question of the first arrival of Man in Ireland is one which is even yet admittedly shrouded in darkness. When was Ireland first peopled, and from whence did the first settlers come are questions the answers to which are still to be hoped for. Archaeological research has slowly moved the age of the first peoples back further and the latest discoveries have been epoch-making in succeeding in proving beyond doubt the fact that Ireland had a Palaeolithic population.

For long it was considered that the first settlers in Ireland had already reached the Neolithic stage of culture before settling in that country. The earliest implements—those associated with the 25-ft. Raised Beach of Post-Glacial times—were regarded as Neolithic implements, and their obvious rudeness was explained away by the

hypothesis that the site on which they were found was a flint-factory and not a dwelling-place, the tools being roughly fashioned there and finished elsewhere. Further discoveries on the Continent, which led to the recognition of the Campignian culture as intermediate between the Palaeolithic and Neolithic, and further study of the Irish 25-ft. Raised Beach implements resulted in placing these early Irish settlers in the Campignian stage of the Mesolithic cultures. During the late Dr Walther Bremer's brief period as Keeper of the Irish Antiquities in the National Museum, Dublin, he drew attention to a collection of flints from Island Magee, co. Antrim, which he recognized as Asturian, a culture which existed in Spain but was contemporary with the Campignian of France and the neighbouring regions.

For the purpose of their investigations the Spelaeological Society selected the South of Ireland, since recent researches had shown that the southern Irish End Moraine of the last glaciation did not cover that area, and hence the likelihood was strongest that traces of Palaeolithic Man would be found there if at all. Several trial 'digs' were first made at other caves near Dungarvan, but finally it was decided to concentrate on the Kilgreany cave and the results proved the wisdom of the choice.

The site excavated lies actually outside the cave as it now exists, but was within it until less than a century ago when the cave itself was quarried back about 15 or 20 feet. It is not necessary to deal here in full with the stratification, since we are concerned only with the evidences afforded by it for the existence of an Irish Palaeolithic period. Suffice it to say that the upper strata showed evidence of the occupation of the cave during the end of the Neolithic period (for a short time), and again during the end of the Bronze Age and the beginning of the Iron Age.

Beneath these deposits, which were found to be disturbed to a greater or less degree, was a stalagmite which presented an unbroken surface throughout, this giving unquestionable evidence of the fact that the underlying remains were in correct stratigraphical relationship. Nothing could have been introduced from above except by digging into the stalagmite, a process which would have been glaringly obvious even if covered by a layer of the latest-formed portion of the stalagmite. This point is important, since it has enabled the excavators to be quite certain that the remains covered by the stalagmite were deposited before the formation of the latter.

The stalagmite covered human remains of at least three individuals. There was one complete skeleton in a kneeling position with the left side against a projecting portion of the cave-wall; the trunk bent forward over the thighs in a semi-crouched attitude. The skull was in correct anatomical relationship with the cervical vertebrae, which is accounted for by the finding of a large number of stones around the skeleton showing it to be an intentional burial contemporaneous with this hearth ('the Third Hearth'). A temporal bone and two teeth represent at least one other individual, and an upper molar, which does not belong to the skeleton nor to the second individual, gives evidence of a third person.

No implements were found associated with these human remains. This is unfortunate since it compels us to fall back on the evidence afforded by the fauna as a means of dating this occupation. The fauna represented by the animal bones are wild boar, giant deer (Irish elk), reindeer, ox, brown bear, wolf, fox, wild cat, stoat, hare, rabbit, field mouse, field vole, Arctic lemming, bats, birds, and some land mollusca. A study of these dates this occupation of the cave in late Pleistocene times and hence the individuals whose remains have been found may be placed undoubtedly in the Palaeolithic Age. The data are insufficient for a certain dating of the occupation to any particular phase of the Palaeolithic culture, but in his report on the fauna Dr Jackson leans to the probability of the Magdalenian period as the one attained.

In this brief note I have summarized the results of this important excavation, which gives us the first definite proof of the existence of Palaeolithic Man in Ireland. (The collections of 'eoliths' reported from near Belfast we may dismiss as freaks of nature). It is merely my intention to call attention to the importance of the work and further information may be obtained from the Spelaeological Society's report. It may not be out of place to remark that the fact that the work was conducted by the Bristol Spelaeological Society points to the great dearth of trained workers in archaeology in Ireland, and to the lack of opportunities for their training. Ireland is admittedly an archaeological province of first-rate importance, yet the number of men who are equipped to study its problems are very few, and though this small number is doing very great work, their efforts must of necessity prove inadequate.

POTSHERDS FROM THE TRANSJORDAN DESERT

During a recent visit to the Middle East we visited two ancient sites lying in the desert east of Amman (1) the ruined 'fishing-village' of Habeiba, of which an air-photograph was published in ANTIQUITY for December 1929, and (2) the 'Kites' near Kasr Azrak. On both sites we found ancient potsherds. There is a strong *a priori* probability that, at any rate at Habeiba, the pottery is contemporary with the remains of walls visible; it is at any rate the only discovery that has been made there, and therefore the only clue, if such it is, to the age of the ruins. We therefore submitted the potsherds to Miss Agnes Conway and Mr G. Horsfield, whose knowledge of kindred wares in that region is great; and we print below Mr Horsfield's report. The sherds are all now in the Archaeological Museum at Cambridge.

HABEIBA

EARLY IRON AGE. A small collection of sherds painted in red on a buff ground. The fragments of pattern are all in straight, hard stripes, and the fabric is smooth, thick and well made. In type of ware and decoration there is a general resemblance to the Philistine painted pottery found at Ophel, Gezer, etc. Some fragments of the same general type, though far from identical, were found at Petra, on the surface, and in the lowest level of the rubbish dumps; *c.* 350–150 B.C. These from Petra are closer to the Philistine than the Habeiba pottery.

HELLENISTIC. Small sherds with no shape. Buff ware.

ROMAN. A few pieces of handles, and some larger sherds of dark grey ware, ribbed in low relief, and of fine manufacture.

UNKNOWN. One large sherd painted with regular black stripes on grey ground, so regular as to look mechanical.

AZRAK

Five small Hellenistic fragments like those from Habeiba.

ROMAN. Bits of handles and small sherds similar to Habeiba.

Five small pieces of clear, bottle-green glass, one ribbed.

MUMMY WHEAT

The following very interesting letter by Sir E. A. Wallis Budge on popular belief in the germinating properties of ancient Egyptian wheat, which was published in *The Times* of 23 April last, is reprinted here by permission of the Editor of that journal, and of the writer.

'Three gentlemen connected with the Press have rung me up and told me that they had received a report from America that a distinguished farmer had succeeded in making to grow wheat which he had obtained from the tomb of Tutānkhamen. And they asked me if I believed that such a thing was credible.

'During my years of service as Keeper of Egyptian Antiquities in the British Museum I was asked this question, either by letter or by word of mouth, on an average twice or thrice a week, and the Director received many letters asking the same question. Dr Birch had said: "Ancient Egyptian wheat will not grow", and we gave that as an answer to inquiries. Subsequently good fortune gave me the opportunity of buying, in 1897, at my own cost, in Western Thebes, a good specimen of a wooden model of an ancient Egyptian granary, which had just been found in a tomb of the Nineteenth Dynasty, say 1200 B.C. It contained little bins and the usual staircase, and the whole space not occupied by the bins was covered with a layer of darkish brown grain, wheat or barley (I know not which), several inches deep. I poured out the grain into a leather bag and brought it home in due course.

'I suggested to the Director that we should give some of the grain to the authorities at Kew Gardens and ask them to make careful experiments and let us know the result. With his approval I wrote to Dr Thiselton Dyer, the Curator, and asked his help, and he promised to give the planting of the grain his personal care and attention. He prepared soil and divided the grain into four little heaps, and he planted each heap separately, and covered each little plot with glass of a different colour—white, yellow, red, and blue. The whole of the Kew staff was intensely interested in the experiment, and many botanists joined them in waiting for the grain to germinate. They waited day after day, week after week, but no shoot of any kind appeared. At length, after three months, they turned over the little plots and found that all the grain had turned to dust. As a result Thiselton Dyer reported that ancient Egyptian wheat or barley would not grow, and then went on to talk about the shortness of the life of

the germinating properties in grain generally. Many others tried the same experiment, with the same result.

'As we shall have all the old stories and statements brought up again in the Press generally, I would fain ask you to put on record in *The Times* the above short account of Thiselton Dyer's exhaustive experiment. When I resigned in 1924 I handed over the grain and some rolls of mummy wrappings—all my personal property—to an official of the department, who still has them.

'Now there is a reason why the belief that ancient Egyptian wheat will grow is so widespread. For hundreds of years the natives have used the halls of tombs as granaries for the wheat and barley which they obtain from Syria. I have known ancient coffins to be packed in this Syrian grain and sent to England, and such grain will, of course, grow. And during the last 30 years the native dragomans and guides have found that tourists will buy "mummy wheat", and they keep supplies in the tombs, carefully hidden, which they dig up under the eyes of the astonished visitor and offer him as *hunta mūmiya*, "mummy wheat", or *sh'eir mūmiya*, "mummy barley". I cannot help thinking that if there had been ancient Egyptian wheat in the tomb of Tutānkhamen we should have heard of it before'.

HALLSTATT

The name of Hallstatt is known to all students of prehistoric archaeology because it is used to describe the earliest Iron Age period of Central and Northwestern Europe. The place itself, however, is much less well known. It lies on the shore of a small but very beautiful lake in Upper Austria, and consists of a small village built mainly on the delta of a mountain torrent. Immediately behind the village rises a precipitous cliff, up which a zig-zag path has been constructed. The visitor who wishes to see the actual site of the famous cemetery ascends by this path to a height of about 1200 feet above the lake to a building called Rudolf's Tower, where he may obtain a magnificent view from a small wooden outlook-hut specially built for this purpose. A few yards further on is the site of the cemetery, with a notice-board recording the fact. It is situated on the steep southern slope of the torrent-valley, where the surface is disturbed by a number of old pits. A more unlikely place for an important archaeological site could hardly be imagined. It is most inaccessible, but yet it has no natural advantages. There is nothing to indicate where the settlement to which

the cemetery belonged was situated, nor is there any obvious place for such. The contents of the graves indicated that the inhabitants were prosperous and wealthy and that they derived some of their possessions (such as amber) from a distance. The only natural wealth of the place is salt—an indispensable commodity in primitive days, when meat had to be preserved against times of scarcity. Salt is still worked in the immediate vicinity of the cemetery, and the adits to the mines can be seen beside the path that leads up to the village of Salzberg. The district has the name of Salzkammergut, a former royal demesne meaning ' Salt-exchequer-district '.

There is a small museum in the village which contains many interesting ' folk-antiques ' and a few objects from the cemetery. The bulk of these however are in the Museum at Vienna. (There are a few at Linz).

Hallstatt is a popular resort of Austrian tourists and hikers in July and August, when the weather is hot and fine, though heavy thunderstorms are not infrequent. There are many interesting excursions in the neighbourhood, a glacier-garden, an ice-cave and such like; and the lake is well adapted for boating and bathing. Hallstatt can be reached by train from Vienna via Linz and Bad Ischl, which is a pleasant little spa reminding one of Tunbridge Wells in the Victorian period. Hallstatt railway-station lies on the eastern shore of the lake, which here is about three quarters of a mile wide. A tiny steamer called *Rudolf* meets all trains and lands one right at a convenient hotel on the opposite side. There are many worse places to spend a few days' holiday for those who like to wander a little off the beaten track.

An admirable description of the Hallstatt cemetery* has been published by Dr Adolf Mahr, formerly director of the National Museum at Vienna and now keeper of the National Museum at Dublin.

EXCAVATIONS IN NUBIA

Professor F. Ll. Griffith sends us the following report:—

The Oxford Expedition to Nubia was first planned in 1910, as the outcome of the interest aroused by the discoveries of Dr Randall-MacIver and Professor J. Garstang. The monuments of Nubia and the Sudan demanded investigation through the various periods of the

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* *Das vorgeschichtliche Hallstatt, zugleich Führer durch die Hallstatt-sammlung des Naturhistorischen Museums in Wien.* Vienna, 1925.

Protodynastic colonies of Egypt, the C–group and Kerma cultures, the suppression of native culture under the New Empire, the conquest of Egypt by the Sudan, the Meroitic civilization and writing, and the later years of Nubian christianity. Our early researches at Faras near the Second Cataract and Sanam opposite Napata in 1910–1913 were reported in the Liverpool *Annals of Archaeology and Anthropology*, vols. VIII-XV. The war put a stop to our activities but Dr G. A. Reisner took over the Napata concession on behalf of Harvard University and made many brilliant discoveries.

In 1929–30 at the suggestion of Mr A. B. B. Howell, then Governor of Dongola Province, and after a ten days' exploratory dig we decided to examine the temple remains at Kawa; the Oxford Expedition was resuscitated, and the most interesting excavation in all my experience began in November 1930.

The result of a little over three months' work has been the complete clearance of three temples from under twelve to fourteen feet of rubbish. A great deal of violent defacement and burning had taken place. It seems to me likely that the destruction was the result of the punitive expedition of Petronius and his troops after Candace's great raid on the Roman defences about the First Cataract. The fury of the Romans against the Ethiopians at Kawa would have been raised to its highest pitch, if, as we suspect, Candace herself resided there while her son, according to Strabo, was in Napata. The fields and gardens which surrounded the city described by Tirhakah in one of the inscriptions are now a bare and sandy waste.

There seems to have been an early occupation of the site by Egyptian colonists of the Middle or possibly even of the Old Kingdom. This colony was lost in the Hyksos and other troubles and the Empire-builders of the New Kingdom had to begin afresh. Probably Amenophis III re-founded Kawa, assigning it to his imperial god Amun of Karnak, and giving it the suggestive name Gem-Aten or Gem-p-Aten—' The Aten Sun-disk is realised ' (?). His son, the monotheist heretic Akhenaten, destroyed the temple of the hated Amun, but Tutankhamun rebuilt it on a smaller scale. Rameses II re-cut the cartouches to a semblance of his own, and Rameses VI ringed the fluted columns with cartouches and with a figure of a high official in adoration. After a blank of 500 years the Ethiopian Dynasty of Napata ruled Egypt for 50 years. This was the period of Kawa's greatest prosperity. Shabako built a column in one temple, Tirhakah added stone doorways to the mud brick walls of another and built a great temple

at right angles to these twin temples. Granite rams were erected before the first and second pylons, and five granite stelae recorded his building and benefactions. Some generations later Aneramen added a sixth stela. Finally Meroitic cartouches of the family of Candace were placed in the First Court and Candace herself dedicated a shrine. Then came Petronius and the destruction of the city : a few inhabitants only can have continued perhaps to the third century. A large house of the age of Candace, with stone porch at the east end of the Great Temple, yielded a Hellenistic bronze figure, an ivory statuette of a girl, and remarkable objects of a more Nilotic type.

Our chief finds were :—in the First Court, besides the granite rams and stelae, miscellaneous blocks, one with an excellent representation of a horse (with sun-helmet) and rider, and two with Meroitic cartouches of Akinerar, the son of Candace, and of Amanishakhate, a somewhat earlier queen whose jewellery is now amongst the treasures of Munich and Berlin (up till now the only examples of Meroitic hieroglyphs in Europe have been two or three in the Berlin Museum). In the Second Court the remains from a huge bonfire of temple furniture, consisting of many fine and rare bronze figures of deities, a steatite baboon, bronze fittings, fayence inlays, together with prehistoric stone implements from the temple treasury. In the Southeast Court a perfect sphinx, a headless statue and two worshipping baboons all of granite and all inscribed by Tirhakah. Among smaller objects are a very fine aryballos of blue fayence and a tiny gold figure of the most delicate workmanship of a king (XVIII dynasty) kneeling and offering wine, and a quantity of fayence inlays, cartouche plaques of Ethiopian kings, etc.

The great wooden doors had been largely plated and studded with bronze : the most interesting relic from them is a pivot-sheath inscribed with a dedication by the king to Ammon of Gem-p-aten.

Of the objects found, the Sudan Government takes half but we were allowed to bring away all the smaller objects for study, exhibition and repair. Our share will be divided chiefly between the Brithish Museum, the Ashmolean and the Ny Carlsberg Glyptothek, Copenhagen.

A full report on the *Kawa Temples* will in due course be prepared for separate publication.

It is hoped in 1932–3 to complete the exploration of Kawa by excavating in the town remains and cemeteries, and also to make trials on other important sites for pagan and Christian remains.

Recent Events

The Editor is not always able to verify information taken from the daily press and other sources and cannot therefore assume responsibility for it.

A skeleton has been found under 14 feet of peat at Stony Island, co. Cork. Here is a chance for someone to zone that particular peat-bed by pollen-analysis (or otherwise) and find out to which of the (pluvial or other) periods it belongs. (*Cork Examiner*, 25 April).

A large number of bronze objects recently found in Western Persia have been acquired by various European museums. They belong to a culture which is otherwise unknown, though there are obvious resemblances to the cultures of adjacent regions. A date in the first millennium B.C. is suggested. Those interested will find further details in the *Zeitschrift für Orientforschung*, band VI, heft 6, pp. 320–22 (a peculiarly interesting number of this valuable journal) and in the *Bulletin des Museaux royaux d'art et d'histoire* [Brussels] ser. 3, nos. 2 and 3 (March and May 1931).

Dr Speiser, whose new book on 'Mesopotamian origins' will shortly be reviewed in ANTIQUITY, has been conducting excavations at Tell Billa near Mosul, on behalf of the University of Pennsylvania Museum. He has found remains dating from the earliest period ('Susian' egg-shell ware) down to historic times. (*Art and Archaeology*, May 1931, XXXI, 283–4).

Professor J. L. Myres has received a cablegram announcing an important archaeological discovery by Miss Dorothy Garrod, who is excavating caves at Athlit, in Palestine, on behalf of the British School of Archaeology in Jerusalem. Miss Garrod reports that her colleague, Mr MacCown, has found a child's skull in a layer of breccia of Mousterian age in one of these caves.

In the cave known as Mugharet el Wad mesolithic burials with head-dresses and shells have been found in place. These new finds are an important additional contribution to the series of discoveries which have been made in these caves during the past two years. (*The Times*, 1 June).

After reading the article on Grim's ditch in our last number, one of our readers in the R.A.F. went up and flew over the course described near Berkhamsted. He found what appears to be a continuation of it eastwards, beyond Berkhamsted Common, and kindly flew the Editor over the newly discovered portions. Before expressing a final opinion it will be necessary to examine the remains on the ground, when the crops have been cut.

A report by Mr H. C. H. Carpenter, of the Royal School of Mines, on an Egyptian axe-head (*c.* 1800 B.C.) published in *Nature*, 18 April, p. 589, contains interesting data as to its casting (it was not forged), hardness, and chemical analysis, as well as the result of an experiment to reproduce the axe-head.

An account of the excavations on the site of Paestum, directed by Professor Maiuri for the recently formed ' Society for Magna Grecia ', assisted by Professor Marzullo of the Salerno Museum, is printed in *The Times*, 22 April, p. 13. A note is added of work being done at Velia (the Greek colony of Elea), 25 miles south of Paestum, where it is proposed to excavate the entire circuit of the old city walls, an undertaking of vast extent.

The Archaeological Survey of Nubia has issued a report on the Middle Kingdom fortress of Kubban, on the east bank of the Nile, opposite Dakka. (*The Times*, 22 April, p. 13).

A Minoan 'holy sepulchre' ('Temple-tomb of the Priest-Kings'), with walls over 15 feet thick, built into the hillside south of the palace of Knossos has been found by Sir Arthur Evans, who dates it to the first quarter of the 16th century B.C. Reports have been communicated by Sir Arthur to *The Times*, 28 April (p. 15), 16 May (p. 13), 13 July (p. 13), and 27 July (p. 13).

Portions of a 7th–8th century cross embedded in the walls of Easby church near Richmond, Yorks, have been purchased by the Victoria and Albert Museum, where there is already another part of the cross. Attention was directed to the extraordinary interest of the cross by Sir Charles Peers in his presidential address to the Society of Antiquaries last April. (*The Antiquaries Journal*, July 1931). A description of the carvings was printed in *The Times*, 30 April, p. 12.

Funds provided by the Egyptian Department of Antiquities have enabled considerable progress to be made in excavating at Ineiba, under the direction of Professor G. Sterndorff of Leipzig. A large number of decorated vases, beads, and articles of jewelry have been found. The excavation of the sacred city of Hermopolis has been undertaken by the Egyptian University's Expedition under Dr Sami Gabra. (*The Times*, 20 May, p. 13).

The results of the season's work at Richborough are summarized in *The Times*, 1 May, p. 11. A permanent museum has been built on the site by H.M. Office of Works.

The principal features of the site of Tell el Ajjul, Gaza, are described by Sir Flinders Petrie in a letter to *The Times*, 19 May, p. 12.

The Indian Archaeological Department reports that remains of 'Indus Valley civilization' have been found near Ambala (Punjab) similar to those at Harappa and Mohenjo Daro. (*The Times*, 19 May, p. 15).

Temples of the Third Egyptian Dynasty at Sakkara, near Cairo, are described and illustrated in *The Times*, 19 May, pp. 15 and 20.

Sir Aurel Stein has abandoned his expedition to Chinese Turkestan mainly on account of the difficulties raised by the Chinese authorities, to which reference was made in the June number of ANTIQUITY. (*The Times*, 25 May, p. 9). In *The Times* of 16 July (p. 13) Sir Aurel gives a detailed statement of the incidents which led to his decision.

An account of the last exhibits removed from the tomb of Tutankhamen and now prepared for the Cairo Museum is given in *The Times*, 27 May, p. 11.

The season's work at Armenochori in Macedonia by the British School at Athens has resulted in a quantity of vases of Early Macedonian Bronze Age culture being found. The vases have two highly-swung ribbon handles which became the common form in later periods. (*The Times*, 27 May, p. 11).

Excavations at Giza Pyramids have been continued by the Harvard-Boston Expedition and the clearing of the cemetery of the Cheops family completed. (*The Times*, 16 June, p. 13).

A summary of the results of the excavations at Perachora, on the Gulf of Corinth, is published in *The Times*, 17 June, p. 10. A large deposit of decorated bronze vases, dated as 7th–6th century B.C., was discovered, as well as a fine bronze oinochoe, and two skyphoi, the first metal examples of the shape ever found in Greece. There were also ivory seals and fibulae, a most important find, as ivory has not been met with before in Corinth.

An interesting inscription has been found on the island of Uronarti on the Nile, about 30 miles above Wady Halfa, by the Harvard Archaeological Expedition under the direction of Dr Reisner. It is cut on a granite block of the quay of a fort built by Pharaoh Sesostris III and records that he took part in the pacification of the country in the 16th year of his reign. (*The Times*, 20 June, p. 11).

The Roman fortress of Caerleon is now transferred to the Office of Works as a national monument. (*The Times*, 23 June, p. 5).

The East African Archaeological Expedition has left England to revisit the Oldoway bone beds in Tanganyika Territory, where Professor Reck in 1913 discovered the fossilized skeleton of a human being. Mr L. S. B. Leakey has joined the Expedition and besides seeing the Oldoway beds hopes to carry out work at the northeast end of the Victoria Nyanza basin, where fossil beds have been known for some time. (*The Times*, 25 June, p. 20).

It is believed that the site of the Academy of Plato near Athens is known as the result of excavations made under the direction of the National Museum of Athens. The walls of a large building, considered to be the college and gymnasium of the Academy, have been found. (*The Times*, 18 June ; *Illustrated London News*, 27 June ; *Manchester Guardian*, 26 June).

A report on the work of the British Museum Expedition to Nineveh under the direction of Dr R. Campbell Thompson was published in the *Birmingham Post*, 26 June. The results include finding the site of the Temple of Ishtar. Illustrations were published in *Illustrated London News*, 27 June.

A coloured illustration of the remarkable inscribed 10th century icon, the first of its kind, found in the ruined church of St. Mary Panachrantos at Constantinople was published in *Illustrated London News*, 27 June. It presents a wholly new example of Byzantine art.

The Public Prosecutor at Cusset states that no further proceedings will be taken against M. Emile Fradin in connexion with the Glozel *affaire* on the ground that evidence is lacking that M. Fradin has profited, or attempted to profit, by the discoveries which he announced. (*The Times*, 29 June).

The finds of the British Museum Expedition in Middle Egypt include an Amratian (early predynastic) bowl of red-painted ware, a fine collection of beads, an alabaster headrest, and some children's shoes of the Christian Coptic period A.D. 300–500. (*The Times*, 3 July, p. 11).

Among the exhibits arranged at University College, London, to illustrate the work of Sir Flinders Petrie's British School of Egypt at Tell el Ajjul near Gaza, a settlement of the Hyksos dynasty, was the skeleton of a horse buried on the site, with three legs cut off before interment. It was found in a pit with human burials. (*The Times*, 6 July).

A barrow at Longdown, near Colbury, in the New Forest, has been opened by Mr J. P. Preston. There were 37 human interments, 26 in urns of the Deverel-Rimbury type. (*The Times*, 18 July, p. 10).

Some Recent Articles

This list is not exhaustive but may be found convenient as a record of papers on subjects which are within the scope of ANTIQUITY. *Books are occasionally included.*

Recherches sur les ossements mésolithiques de Mugem, by Henri V. Vallois, Professor of Anatomy, Toulouse. *L'Anthropologie*, 1930, XL, 337–389.

An important article.

Slovenské Hradiska z doby Hallstattskej (Slovak oppida of the Hallstatt period). *Sbornik Muzealnej Slovenskej spoloc nosti*, 1929. XXIII, 32 pages, 12 plates. French summary.

Reviewed in *L'Anthropologie*, 1931, XLI, 177–8. Contoured plans of hill-forts.

News items from Jerusalem, by Chester C. McCown, Director of the American School of Oriental Research in Jerusalem. *Amer. Journ. of Arch.*, 1931, XXXV, 93–107.

A very full account of archaeological field-work in Palestine and Transjordan in 1930, including the interesting neolithic or Early Bronze Age sites called Teleilât el Ghassul in the Jordan Valley.

Anthropology: old and new, by Professor Sir Arthur Keith. [Beddoe Memorial Lecture, delivered at Bristol, 5 September 1930]. Publication not specified, but printed in *Journal Bristol and Medico-Chirurgical Society*, XLVII, Winter 1930.

This is a fine tribute to the memory of a great anthropologist whom Sir Arthur calls ' the founder of modern physical anthropology ', the author of ' the greatest treasury of anthropological fact which has ever appeared in any language '. But it is more than this; for it narrates—though necessarily in briefest outline—some of the main facts of his life, and some of the more important conclusions to which he came; and concludes with an appeal for the foundation of a Chair of Physical Anthropology at Bristol University.

Les Origines de l'Iconographie irlandaise, by Françoise Henry. *Revue Archéologique*, 1930, XXXII, 89–115.

The Dorsey: some notes on the large entrenchment in the Townland of Dorsey in the south of the county of Armagh [Ireland], by Henry G. Tempest. *County Louth Arch. Journ.* Dec. 1930, VII, 187–240.

A full account of an interesting earthwork illustrated by air-photographs, one of which was published in ANTIQUITY, December 1930.

Untersuchungen über Zeit und Stil der ' chetitischen ' Reliefs, by Fr. W. Freiherr von Bissing. *Archiv für Orientforschung*, 1931, VI, 159–201.

Stone Axes found in the Isle of Wight, part 2, by Hubert F. Poole. *Proc. I. of Wight Nat. Hist. and Arch. Soc.*, 1930, II, 27–38 (4 plates).

These notes are a continuation of Mr Poole's studies, and deal with chipped celts, polished celts, rechipped implements, axes of material other than flint, and perforated axes. The interesting fact is brought out that polished axes are almost entirely confined to the southern (cretaceous) portion of the island. The paper is admirably put together and the drawings are a model of what such should be.

Station chelléenne de la carrière Martin, près El Hank [Maroc], by M. Antoine. *Bull. de la Soc. de Préh. du Maroc*, 1930, 4th year, 59—117.

Comechingon Pottery. (Reprinted from Proceedings of the Twenty-third International Congress of Americanists, September 1928). By G. A. Gardner. U.S.A., 1931, pp. 35, (price not stated).

An authoritative and voluminously-documented paper on the ceramics of the Comechingon peoples of Cordoba which may be taken as a model of how to deal exhaustively with an unimportant subject. Establishes the Peruvian-influenced character of the Central Argentine cultures. J. L. MITCHELL.

The Ancient Mimbrenos : based on investigations of the Mattocks Ruin, Mimbres Valley, New Mexico, by Paul H. Nesbitt. The Logan Museum, Beloit College, Wisconsin, U.S.A. *Dollars* 1.50.

The record of the expedition of the Logan Museum and an account of painstaking research and excavation among the ruins of this branch of the Northern Pueblo culture. In general the expedition confirmed the comparative cultural unimportance of the Mimbrenos. The ceramic finds figured have, however, considerable interest. J. L. MITCHELL.

The Museum Journal. Vol. XXI, nos 3–4. September–December 1930. Published by the Museum of the University of Pennsylvania, Philadelphia. pp. 93. (Price not stated).

Contains three papers—one on the excavation of an Indian mound at Beech Bottom, West Virginia, one describing Mr Edgar B. Howard's researches in the Basket Makers' caves of the Guadalupe Mountains (and re-affirming for those Basket-Makers Dr Kidder's astounding chronology of 2000–1500 B.C.), and one which seeks to outline the Tlingit concept of the after-life in the myth of ' How Ats-Ha followed the Hide of his Comrade to Yek Land '. This last paper, by Mr Louis Shotridge, is illuminating and important. J. L. MITCHELL.

Reviews

ATHLETICS OF THE ANCIENT WORLD. *By* E. Norman Gardiner. *The Clarendon Press, Oxford*, 1930. *pp.* x, 246 *and* 216 *illustrations.* 28*s.*

This book is one of a series of works, of which it may be regarded as the culmination. In 1903 Dr Gardiner read before the Hellenic Society a paper on that well-known *crux* the pentathlon. It was followed by a series of papers in the *Journal of Hellenic Studies* in which every side of Greek athletics was treated with extraordinary thoroughness. No one had a more complete equipment for the investigation than Dr Gardiner, combining as he does good scholarship and a thoroughly practical knowledge of modern athletics. His patience and goodness of judgment are unsurpassed. In 1910 was published his *Greek Athletic Sports and Festivals*, which at once placed him at the head of all writers on the subject.

The new book is not a new edition of the last-mentioned work, but is on a somewhat different plan. The scope is extended to include the ancient East on the one side, and Roman sports on the other, although the former of these subjects occupies only 14 pages, and the latter 12. The text is much reduced in length, the number of illustrations slightly increased. The author has omitted matter of historical interest, and has striven after greater simplicity. He has added a chapter on ancient ball-play, and omitted one on chariot-racing. The illustrations include some representing modern athletes and athletics, but are in the main the same as before, though the recent minute intensive work on Greek vases, which are the source of most of them, has enabled him to attain to more exactness as to date and style.

Anyone who has followed Dr Gardiner's labours during the last thirty years will be disposed to prefer the book of 1910. It is said to be out of print; but surely it is possible to reprint it. Dr Gardiner is not a diffuse writer; and his abridgement is largely gained by the omission of a number of discussions of questions which interest the scholar and the athlete. In the new book he gives his final opinions, and does not show how they were reached. But in archaeology, as in philosophy, the old rule prevails that the search for truth is more satisfying than the possession of truth. The author's phrase 'Much matter of purely historical or archaeological interest has been omitted' is unfortunate, when the whole book consists of archaeological matter, and its great value is historic. The new book is also more expensive than the old. I cannot refrain from a regret that both the University Presses now publish classical books at a price which puts them out of reach of all but the wealthy. M. Reinach's excellent example, in producing for five francs most elaborate works on Greek art, is not followed in England.

However, I must not spend my brief space in regrets. It is a delight to read the work of a man so completely master of his subject and so full of a fresh enthusiasm as Dr Gardiner. His recent death is a blow to all lovers of the Classics, especially to his Oxford colleagues, to whom his extreme kindliness and his readiness to help had greatly endeared him.

Besides its exact and scientific account of ancient sports, there is, in Dr Gardiner's book, a healthy and breezy modernity. He compares modern with ancient facts, and often relentlessly throws aside the statements of ancient writers. He realizes how much these are dominated by the great curse of Greek literature, rhetorical prepossessions. He brings everything to the test of fact and possibility. And one of the most satisfactory of his cautions is his insistence on the degree to which professionalism and even specialism are ruinous to the spirit of sport. He shows how this cause brought about the degradation of the great games in later Greece, and hints that we have begun, expecially under American influence, to travel on the same path. Manly competition had been the secret of Greek sport, in which every young man was expected to take a share. In Hellenistic and Roman times, the games degenerated into the performances of a few overtrained acrobats, while the great majority merely stood by and looked on. In sports of that kind, however many records may be broken, there is no real value. P. GARDNER.

THE ROSETTA STONE IN THE BRITISH MUSEUM. *By* SIR E. A. WALLIS BUDGE. *Religious Tract Society*, 1929. *pp.* 325 *and* 22 *plates.* 12*s* 6*d.*

In the decrees of Memphis and Canopus published so long ago as 1904 Sir E. A. Wallis Budge told us the romantic stories of the discovery and decipherment of the Rosetta Stone, and gave us a full account of its triple inscription with translations. Knowledge of the demotic, and still more of the hieroglyphic, writings, has grown greatly in the interval and allows much more accurate translation than was then possible. That earlier account, too, must now be difficult to procure.

While the finding of the Stone and its subsequent history is a tale of no little interest, the decipherment of the hieroglyphic text thereon is one of those fascinating stories that prove that truth is indeed stranger than fiction. It may rank with that other remarkable achievement, the discovery of Uranus, which it resembles in that both a Frenchman, and an Englishman, had a share in the conquest ; though in this case the main honour belongs to France.

The book contains, with one exception, the full texts and translations, intended doubtless to serve as the complete text-book for the student, yet it is marred by errors which should not have passed the proof reader. Major-General Turner and the Rev. Stephen Weston are each referred to under two names. The former appears both as Turner and Taylor though only indexed (wrongly) as Taylor, while the latter is divided into Weston and Watson and appears doubly in the index. The fact that General Turner was Colonel at the outset is no excuse as he is also given as Major-General. This error was not in the account of 1904.

Then, too, the omission of the demotic text (of which, as of the hieroglyphic, a transliteration and translation are given) is a defect in completeness ; if lack of space was the reason, some of the interesting, but not wholly relevant, plates of Egyptian temples might have been sacrificed.

This omission is emphasized by the substitution of a very small and illegible plate of the stone as a whole for the much larger reproduction given in 1904 in which the texts could be read. Further, we should have liked to have heard more of the decipherment of the demotic. Finally, the paper used is not of the best. Yet everyone who has the least interest in Egypt, or in a painstaking victory for human genius, should read this book.

G. S. C. COOKE.

ÉCOLE FRANÇAISE D'ATHÈNES. ÉTUDES CRÉTOISES, I. MALLIA. Premier Rapport 1922–24. *By* F. CHAPOUTHIER *and* J. CHARBONNEAUX. *Paris : Geuthner. pp.* ii, 66 *and* 36 *plates.* 100 *francs.*

On an old map of Crete the site of the Minoan palace at Mallia, which lies on the north coast of the island a long day's journey on foot to the east of Cnossus, is marked as containing ' extensive Hellenic ruins '. Dr Chatzidakis, the veteran explorer of his native island, first began work here in 1915 and the excavations since 1921 have been continued by the French School at Athens, which in the present volume publishes the first report on the general results obtained between 1922 and 1924. The palace, which in size and structure ranks with those of Cnossus and Phaestus, apparently consisted of a central court with great ranges of buildings erected around it. The style of the architecture in its use of ashlar work and the provision of frequent staircases giving access to upper stories, and the purpose of the various chambers, are much the same as those of the other Cretan palaces. On the west side of the court there are ranges of magazines, as at Cnossus, still containing long rows of store jars. The rooms generally are small and are grouped as in other Cretan palaces without any very definite plan and the method of roofing is of a simple post and beam type throughout. In addition to the magazines there are courts, porticoes, porches, bathrooms, and pillar rooms, but except for the splendid Middle Minoan sword here beautifully reproduced in colour and the wonderful ceremonial axe-head of the same date the finds of painted pottery, frescoes, bronzes, ivories, stone bowls, and the like have been rather disappointing. Still the bronze sword with its hilt of gilt limestone and its pommel of rock crystal, and the axe-head of brown schist in the form of a crouching panther with elaborate scroll work ornament, are a rich compensation.

The site was first occupied in neolithic times and the first buildings that survive date from the second Early Minoan age. The palace was built in Middle Minoan I and was remodelled in Middle Minoan II and III, though in M. M. II it seems to have been deserted for a time. It was destroyed by fire in Late Minoan I after having been well looted.

The main part of this book is devoted to a simple and useful description with plans and photographs of the various chambers and courts so far uncovered, and at the end are short notes on the principal classes of objects found in the excavations. The general account is clear and good, but more detailed plans would have been welcome. In a site of this type where the dating depends so largely on the architecture and the successive strata of rebuilding or remodelling clear stone for stone plans showing the character of the construction are essential. Sections should also be generously provided to illustrate the stratification, since in a palace of this type where filling or levelling or cutting down have taken place it is not always possible to determine the date of a building by the remains found below its floors alone. On the whole, however, the authors have acquitted themselves well.

A. J. B. WACE.

ÉCOLE FRANÇAISE D'ATHÈNES. ÉTUDES CRÉTOISES, II. MALLIA. Écritures Minoennes. *By* F. CHAPOUTHIER. *Paris : Geuthner. pp.* 100 *and* 8 *plates.* 80 *francs.*

In the northern part of the west wing of the palace at Mallia in a small chamber approached from a shallow porch the French excavators found in 1923 a deposit of clay sealings and of inscribed roundels, bars, and tablets of clay. In some cases the signs

were impressed, in others incised. M. Chapouthier dates the deposit to the later years of Middle Minoan III, perhaps even to the transition between M. M. III and L. M. I. He regards the rooms where the deposit was found as the record office of the palace and the tablets themselves as the remains of accounts, for numerals are prominent on them. There are thirty-three hieroglyphic and three linear documents. The first divide into seven classes : seal impressions, inscribed impressions, medallions, plaques inscribed on both sides, rectangular bars of clay, tablets, and vases. He analyzes the signs represented with care and precision, giving their analogies with Cnossus, Phaestus, and other sites, and points out what signs are new. He finds no boustrophedon inscriptions and thinks that contrary to the Cnossian custom the signs usually run from right to left. The three linear documents belong to class A and show two new signs. The author briefly discusses the origin of the alphabet, and after examining the evidence for the three principal claimants concludes that Egypt, Crete and Phoenicia in turn and in successive ages each led the way in the evolution of writing and in the development of the alphabet. While admitting the services rendered by the Phoenicians he believes that they themselves invented few or none of the signs, but took them over from Crete. Their invention was the division of the language into a small series of simple sounds. He also describes the signs incised on the blocks of the walls and shows that these are mostly M. M. I, though some belong to the period of reconstruction in M. M. III. These symbols, which are usually large and deeply cut, seem to be arranged according to the various quarters of the palace and each quarter seems almost to have had its own symbol. These signs do not he thinks have any religious significance, more especially as they were cut on the stones before they were put in place. So he decides that they were cut in the quarry and were masons' or quarrymen's marks.

The author deserves hearty thanks for this simple straightforward publication of new material which is thus made accessible to all scholars and archaeologists. Such full and prompt publication is in itself alone a valuable contribution. A. J. B. WACE.

THE PLACE-NAMES OF GALLOWAY : their origin and meaning considered. *By* the Right Hon. SIR HERBERT MAXWELL, Bt., F.R.S. *Glasgow : Jackson and Wylie*, 1930. *pp.* XLVI, 278. 21*s*.

This book deals with an area hitherto untouched by students of place-names, and it includes not only all names on the 6-inch map but also a considerable number of field-names gathered from various sources. The material is arranged alphabetically, under the names of the parishes ; the early spellings where these exist are given and the interpretation whenever possible. The position of the stress accent is indicated in every case and the importance of this is well seen in such names as Ernespie and Gillespie. Here the accent falls on the second syllable so that it is clear that the ending is not the Old Norse *by* as in Golspie in Sutherland.

By using the alphabetical order the author saves himself the trouble of an index, but the book might have been more readable and would certainly have been more interesting had the names been grouped topographically under their respective parishes after the manner adopted by Professor Watson in his *Place-Names of Ross and Cromarty*, and later by Mr Kneen and by the English Place-Name Society. By this means the distribution and frequency of certain names and elements in the different areas could have been noted. Also the parish names would have been given an important and conspicuous position in each case instead of being hidden among a multitude of field and farm names.

The author has had to contend with several difficulties. In the first place the early material for the two counties surveyed is poor. There appear to be no monastic cartularies dealing with this part and very few other special sources. That monumental work, the *Origines Parochiales*, was unfortunately not completed so far as to include any part of Galloway and it has seldom been possible to obtain spellings earlier than the 15th century even for the parish names.

On the interpretation side we have the disadvantage that the Gaelic language has now been extinct here for nearly 400 years, so that it is not possible to get from the natives the correct accentuation and pronunciation of the names as was the case for example in Ross and Cromarty. As a result of these disadvantages a large number of names have had to remain unexplained.

The author has evidently consulted Professor Watson's *Celtic Place-Names of Scotland*, but he does not appear to have profited to the fullest extent by it. The names of the late Dr MacBain and of the Rev. J. B. Johnston do not appear at all in his bibliography. The former's etymological dictionary might frequently have given some assistance.

Sir Herbert does not readily accept Professor Watson's statement that the earlier inhabitants of Galloway were a Brythonic people akin to those of Strathclyde. Nevertheless such is the opinion of most present-day scholars. It is true that but a handful of British names appear to have survived, the proportion being smaller than in most other parts of the Lowlands. A few names explained from Gaelic sources may, however, be British. *Leswalt* probably contains, as suggested by Professor Watson, a word equivalent to Welsh *gwyllt*, ' grass '. Some of the compounds in *Car-* and *Mini-* may contain a British rather than a Gaelic first element (cf. Welsh *mynydd*, 'mountain').

Scandinavian influence is smaller than one might expect and is much less evident than in the adjacent county of Dumfriesshire. There are two or three names in *by* as Applebie, Sorbie (the latter, unexplained in the text, is probably identical with Sowerby in Yorkshire, the first element being the Old Norse *saurr*, ' mud, dirt '). Other typically Scandinavian names are Cogarth, Physgill (' fish gill '), Rerwick, Trondale and Hestan Island, a curious perversion of Estholm, ' east island '. We have a few hybrid names such as Glenstockdale, Arbigland, Arbreck, with a later Gaelic prefix added. The Mull of Galloway may be referred to the Old Norse *múli*, ' jutting promontory ', though Sir Herbert would prefer to associate the name with the Gaelic *maol*, ' bald '.

English influence dates from the 7th century, when the district came under the influence of the Angles who had already in the previous century conquered the land between the Tweed and the Forth. A fair number of the parish names of the two counties are of English origin. Stoneykirk is explained in the text as ' Stephen's kirk ' but the early spellings point rather to ' stony acre '. Twynholm is explained from Old English *betweonum*, ' between '. The meaning is rather ' between the waters ', the name being identical with Twineham in Sussex. One or two other names may be either English or Scandinavian, *e.g.*, Borgue, Tungland (cf. Tongue in Sutherland). A noteworthy feature is the large number of parish names with prefix Kirk-, the second element being a saint's name, usually, though not invariably, an Irish one. These so-called ' inversion compounds ' are of course common elsewhere in the Lowlands and also in Cumberland.

The vast majority of the place-names of Galloway are Gaelic, including nearly all names of farms, fields and natural features. The first influx of Gaelic-speaking people took place after the defeat of Egbert in 756, and the Gall Ghaidhil who gave the name to the district are first mentioned in 852. Gaelic was probably the only language spoken

by the people during the next six or seven hundred years, a sufficiently long period for most of the places to be re-named. As a rule the Gaelic place-names are of the simple descriptive type and thus offer few points of special interest to the archaeologist or historian. Most of the common elements to be found in Highland place-names occur here in varying proportions and on the whole a comparison of the chief elements in use shows affinity with Scotch rather than with Irish or Manx Gaelic. It may be therefore that intercommunication between Galloway and Ireland was not so frequent as has sometimes been supposed.

To judge by the Introduction and the general tone of the book, the author's interests have been on the topographical rather than on the historical and philological side, so that while the volume cannot by any means be said to reach the high standard set by MacBain, Watson, and other scholars, it should yet prove of some interest locally and to all those interested in Scottish scenery and topography. J. E. Gover.

MINOANS, PHILISTINES, AND GREEKS, 1400–900 B.C. *By* A. R. Burn. *Kegan Paul*, 1930. *pp.* xvi, 274, *with* 16 *plates and* 2 *maps.* 15*s.*

There are two classes of books which can be written about the Aegean civilization. In the first class come the original reports of excavations, publications of surviving monuments, and other researches described and discussed by the archaeologists who have actually carried out the work. Books of this class are permanent because the record of a scientific excavation is part of the raw material from which the history of the Aegean Neolithic and Bronze Ages must be reconstructed. The second class comprises books of more general appeal, usually not written by archaeologists who have specialized in this field. These in a more or less popular manner endeavour by co-ordinating the archaeological results with literary and other tradition to produce a connected story, and from this to explain Pelasgians, Achaeans, Dorians, Philistines, Carians, etc. Such books from their very nature cannot expect a long life since they depend more on theory than on fact, and often instead of being based on a fresh impartial review of the archaeological and other evidence employ, in part at least, the theories of earlier writers. Mr Burn's book is a good example of the second class. The author naturally suffers from the disadvantage of not having a first hand acquaintance with the archaeology. In order to present his case he is at times compelled to be more definite than the evidence warrants, as for instance in saying, ' It was in the years following the earthquake that the first Cretan settlers landed in Argolis ' (p. 75). The Thessalian domicile of the Achaeans is not certain (p. 69), nor is the connexion between the Second Thessalian Period and the Ukraine. He puts too early a date on the palace at Tiryns (p. 77), and to say that the northern megaron is characteristically absent in the palace at Thebes is stretching the facts, for only a very small area of the Theban palace has yet been cleared, and further its date may have to be brought down later, like that of the Tirynthian palace. He does not attempt to distinguish in the last phase of the Bronze Age between the products of the mainland and of Crete, which is essential for a historical understanding of the archaeological facts, and his two statements about the culture of Mycenae on pages 75 and 105 are somewhat inconsistent. He overlooks the fact that Mycenae, Tiryns, and other walled 'cities' are not cities, but palace-castles.

The first part is mainly explanatory and provides a readable introduction to the subject. In the second part the first four chapters demand specialist archaeological knowledge and are weak, but in the next three chapters, dealing with Egypt, the Hittites,

and the Sea Raiders, the author is more at home, being able to use the Egyptian and Hittite records. He should, however, be cautious in accepting Forrer's identification of geographical and personal names. Chapter VIII is an interlude and the next two on the Achaeans and the Iron Age approach very debatable ground. The origin of the Philistines seems to be left somewhat obscure, but the author constructs a good connected account of their history based on the biblical and other records. In some respects, for instance in defending the culture of the Greek mainland in the third phase of the Late Bronze Age from the accusation of degeneration and decadence which is often thoughtlessly levelled against it, and in his appreciation of the engineering achievement of the Treasury of Atreus, Mr Burn shows independence of judgment, but at other times he seems overawed by the reputations of the authors whose syntheses he uses. Still those who need a general account of this period which attempts to combine archaeology, history and legend will find this book most serviceable, but it should not be made the basis for further research without reference in every case to the original authority, archaeological or historical, and without sorting out fact from theory. The illustrations are an assistance but not essential. The Treasury of Atreus on plate VIIb might have been given its name, and two blocks on plates VIII and XVI give the appearance of having been borrowed from the *Cambridge Ancient History*. A. J. B. WACE.

DET NORSKE FOLKS LIV OG HISTORIE GJENNEM TIDENE, fra oldtiden til omkring 1000 e. Kr. *By* HAAKON SHETELIG. *Oslo : H. Aschehoug & Co.* 1930. *pp.* 392. *Price not stated.*

This book is a masterpiece of compression. To depict Norwegian culture and development over a period of 7000 years in a handy volume of this size, beautifully printed and lavishly illustrated, and to include therein everything essential of what has been laboriously ascertained by the research of archaeologists of three generations at least, is in itself something of a *tour de force*. Yet this has been done, and to every student of northern European archaeology the book will be indispensable.

It is the first volume of a projected work on Norse life down through the ages, of which Professor Shetelig and three others are the general editors. It is apparently designed for the ordinary reader rather than the specialist, and in consequence controversial matter is reduced to a minimum. The author seems, indeed, to have adopted the recent theory with regard to the chronology of the Viking Age, of which Professor Koht is the best known exponent. On this theory, the traditional date of the battle of Hafrsfjord is brought down from A.D. 872 to *c.* 900, and contingent dates are altered accordingly. But, apart from that, there is hardly anything in the book which will not meet with general acceptance.

Beginning with a brief account of the Ice Age in the North, the author outlines for us the whole course of Norwegian life from that of the hunters of *c.* 6000 B.C. (the so-called Fosna and Komsa cultures), down through the centuries until those earliest folk and their essentially bone-culture were superseded about 4000 B.C. by the Norwegian ' Elder Stone-age ' or Nöstvet folk (with their characteristic stone axes) ; and the later ' Younger Stone-age ' folk who, in turn, were succeeded by the Bronze Age people of the great burial mounds ; and so on through the relatively modern Iron Age, the Roman, the Migration, and the Merovingian Periods down to A.D. 1000, when the mighty pulsations of the Viking Age were already subsiding, and Odin, Thor and the other pagan divinities yielding to the White Christ.

The exposition of the differences between the rock-carvings of Neolithic and those of Bronze Age date is illuminating and convincing. The former are shown to be naturalistic renderings of animals etc., carved with definitely magical intent to assist the hunter ; the latter are, on the whole, schematic, and pretty obviously of religious origin. Nothing in the book is more striking than the remarkable continuity evinced between the neolithic carvings and the comparatively recent runic inscriptions, which by reason of their new variety of magic rendered the earlier magic obsolete. His sober comments also on cup-marks (wherein he follows Sophus Muller) might be read with profit by way of contrast to some of the fantastic theories current in this land. The chapters dealing with the multitudinous relics of the Viking Age are particularly good (especially in regard to art) but on the historic side the reader should supplement this summary with a study of Kendrick's recent volume on the Vikings, as well as the late Dr Bugge's brilliant volumes *Vikingerne*, and *Vesterlandenes Indflydelse etc.* Professor Brögger's book also (reviewed ANTIQUITY, June 1928, 253) casts much new light on the same period.

Norway is singularly fortunate in having as custodians of her noble antiquarian museums in Oslo and Bergen two such indefatigable expositors of her ancient past as Brögger and Shetelig—a couple who, by reason of their complementary labours, might not unfitly be termed the Dioscuri of her Dawn. Readers of ANTIQUITY will also join in the congratulations Professor Shetelig has lately received on his being created by King Haakon a Knight of the Order of St. Olav. HUGH MARWICK.

THE HISTORIA REGUM BRITANNIAE OF GEOFFREY OF MONMOUTH. *By* ACTON GRISCOM. *Longman*, 1929. *pp.* 690, *and* 16 *plates.* 42*s.*

This stout volume, produced in a lavish style with everything handsome about it, is certainly a monument of industry. Of its nearly 700 pages, 320 are occupied by a Latin text of the *Historia*, collations with two other manuscripts, and a translation of one of the Welsh Bruts printed concurrently with the Latin. It is strange to think that we have had to wait so long for a good printed text of what is, admittedly, a most important work, but it is a fact that a rather slipshod 16th century edition has been the basis of all subsequent editions. Mr Griscom therefore deserves the gratitude of scholars for at last providing what appears to be a sound text. He prints as his text the version of MS. no. 1706 in the Cambridge University Library, which is in his opinion one of the earliest of extant 12th century MSS of the book, and gives minute collations with two other MSS, one of the 12th and one of the 14th century. It seems unlikely that anyone will want more than this for a long time, though endless and horrifying vistas of collation present themselves when one reflects that Mr Griscom lists 190 MSS of the *Historia*, of which no less than 48 belong to the half century after the first appearance of the book. Mr Griscom devotes 56 pages to an elaborate discussion of the various dedications found in different MSS, and comes to the conclusion that the date of publication was early in 1136.

That so many early MSS should survive to the present day is a striking proof of the amazing popularity of the *Historia Regum* from its first appearance, a popularity which had the important result for European literature of spreading far and wide the beginnings of the Arthurian legend. It is indeed mainly students of literature who have hitherto been interested in Geoffrey of Monmouth and his work, and the general view is and has been that the basis of the book is a liberal use of Nennius, Gildas, Bede and perhaps Virgil and Livy, eked out by a plentiful supply of Welsh traditions and folk-tales, and

that this last element is so twined about all the rest that it is impossible to disentangle any shreds of historical fact which may be there. It is this position which Mr Griscom sets out to demolish. Briefly his theses are (1) that Geoffrey was simply telling the truth when he said that he had translated his book into Latin out of a very old book brought out of Brittany by Walter the Archdeacon ; (2) that the numerous Welsh Bruts or Chronicles, which are generally held to be translations or adaptations of the *Historia*, are in reality independent versions made from the sources used by Geoffrey ; (3) that a careful study of all these Welsh compilations would be very fruitful to the historian of early Britain.

Without being dogmatic on the first of these points (it is not, and cannot be, certain that Geoffrey had not written sources which have failed to survive) it may be said at once that Mr Griscom quite fails to establish his second and main contention. In the first place there is the undeniable fact that whilst the oldest MSS of the Latin *Historia* can certainly be dated before Geoffrey's death in 1155, the oldest MS of a Welsh Brut has never been dated earlier than 1200, though late 13th and 14th century MSS are not uncommon. Lacking a Welsh MS older than the Latin ones, Mr Griscom's best support would be the existence in the Welsh of substantial historical passages not found in the Latin work, but he produces none ; the few additions found in the Bruts consist of typical pieces of Celtic folk-lore such as the story of Llud and Llevelys. Certainly a comparison of the translation of a Welsh text given here with the *Historia* seems to show without a doubt that the one is a (somewhat condensed and free) translation of the other.

Finally Mr Griscom makes a good deal of play with statements that Geoffrey's historical value is being borne out by recent anthropological and archaeological discoveries. He only cites two examples. (1) Geoffrey states that Pascentius, the son of Vortigern the British king, went to Ireland to obtain assistance and was well received ; and there are in Ireland two stones with inscriptions in ogham characters which have been deciphered as 'Ailella maqi Vorrtigurn' and the single name 'Vortigurn'. At the most however this would only prove what has never been contested, that Geoffrey did embody in his book a good many traditional stories which may have some historical truth ; but even this rests on the tacit assumption that the name Vortigern can only have been borne by one person, which seems quite unjustifiable. (2) the second instance is more curious. Geoffrey has a story of a battle between the British leader Asclepiodotus and the Roman general Gallus at Londinium, when the Britons defeated the Romans and killed all but one Legion, who then sued for mercy ; but whilst Asclepiodotus was considering their plea, the Venedoti attacked and massacred them, beheading them all in one day beside a small stream beneath the walls of the city 'qui postea de nomine ducis britannice nantgallun, saxonice vero galabroc nuncupatus fuit'. Now in the course of various excavations along the river Walbrook in London there have been found great numbers of human skulls, but hardly any other bones. Mr Griscom takes the view that Geoffrey was retailing a true tradition of a historical event, and that the name of the stream still commemorates it. It is, however, hard to swallow Geoffrey's etymology, and the early forms of the name Walbrook seem incapable of bearing any other explanation than that of being derived from the Old English *weale broc*, the stream of the Britons. Is it not possible that skulls were dug up along the stream even in the 12th century, and that etymology and story were invented to fit them?

It should be noted that the book also contains very full lists of all the known MSS both of the Latin and the Welsh versions of the *Historia* and several good indexes.

E. G. WITHYCOMBE.

BRONZEZEITLICHE UND FRÜHEISENZEITLICHE CHRONOLOGIE. II, HALLSTATTZEIT. *By* NILS ÅBERG. *Stockholm : Im Verlag der Akedemie*, 1931. *pp.* 109 *and* 225 *figs.* 20 *kr.*

Following in the footsteps of Montelius, Dr Åberg is setting out to build up his new and more accurate absolute chronology of the prehistoric metal ages in northern and central Europe on the relations with Italy. The study of Italian chronology, already reviewed in ANTIQUITY,* formed the first step in the construction and a necessary prelude to the present volume. (We shall see in the sequel that the criticisms there made by Dr Randall-MacIver on our author's dating of certain phases in Upper Italy are borne out by the results of the present work). The ' Hallstatt period ' being the first epoch when any considerable number of accurately datable imports from Italy are found in barbarian graves north of the Alps, the determination of its chronological limits naturally forms the second step in the elaboration of the projected system.

But the stage is a difficult one. Under the name Hallstatt are usually lumped together a variety of distinct cultures whose exact chronological and cultural relations have not as a whole been worked out by detailed preparatory studies such as were already available for Italy. Moreover the various authorities differ widely in their use of the term ' Hallstatt period '. Dr Åberg wisely defines it as the epoch covered by the cemetery at Hallstatt itself (excluding of course the distinctively La Tène graves). He therefore, like Kraft, treats what Reinecke calls ' Hallstatt A ' as the last phase of the pure Bronze Age. This, I believe, makes for clarity even though iron objects may already appear in graves of this stage, for instance at Maria Rast in Styria. Like Hoernes and Déchelette he contents himself with a two-fold division, and this again seems all that is practicable at the moment though the subdivision of the earlier phase into two, corresponding to Reinecke's phases B and C, is a desideratum that can already be realized in some areas such as Würtemberg.

But even within the limits thus laid down the cemeteries containing grave-goods comparable with those from Hallstatt fall into a number of distinct local groups, each in the main rooted in earlier Bronze Age cultures. Some recent authors have elevated types distinctive of a cultural group, a tribe or people, into chronological criteria ; we read of a Gündling phase instead of a Gündling culture. Thus inflated chronologies have been created, the fallacies of which could be exposed by a little simple cartography. Dr Åberg studiously avoids the error of taking local products, embodying the fashions of a perhaps conservative folk, as indicators of general chronological value. Instead he examines all tomb groups from the representative areas containing datable objects of Italian manufacture in a significant context. The task, thus rightly conceived, is admirably executed, and the discussion affords perhaps the best existing guide to the Hallstatt period as a whole. The relevant grave-groups are figured, and much material, otherwise difficult of access or unpublished, is made available.

Apart from certain types, such as antennae swords and harp-fibulae, which go back to the Bronze Age and may therefore have a wider range, the general conclusion is that the earlier Hallstatt phase is parallel to the Arnoaldi period in Upper Italy, the later to the Certosa period. This revolutionary result is supported by solid arguments. The imported Italian bronze vessels from the earlier graves at Hallstatt and elsewhere are all decorated in the unmistakable style of the Arnoaldi cemetery. In Italy antennae

* March 1931, pp. 125–8.

swords, which Reinecke assigns to Hallstatt A, may occur as late. Again in the later tombs we have figured bronzes of Atestine style admittedly of early 5th century age. Many of the fibulae assigned to the later Hallstatt period can no doubt be paralleled in the Arnoaldi phase (some like his fig. 175 even in Benacci II) of Upper Italy. But in grave 696 at Hallstatt one such was associated with a bronze bucket-lid of the aforementioned Atestine style. It may then be that the parallelism is not exact, each of the Hallstatt phases beginning a little earlier than the corresponding phase in Italy, but one must admit that the author has established it in general.

What of the absolute chronology ? On our author's dating of North Italian phases, the earlier Hallstatt period lies between 650 and 500 B.C., while the later occupies the 5th century. The La Tène period must then begin 'after rather than before 400 B.C.'. This last conclusion can be checked by data independent of the disputed Italian chronology, namely by imported Greek vases from early La Tène graves. Now some of these unambiguously belong to the 5th century rather than the 4th. A slice of the former must therefore be assigned to the La Tène period and not to the Late Hallstatt. Dr Åberg has paid little attention to these Greek vases though he criticizes very pertinently Reinecke's other arguments for dating La Tène high. In justification for his 4th century dating he contends that the close contact between Gaul and the Hellenic world which quickened the La Tène culture into life can only be the reflex of the Gaulish invasion of Upper Italy about 400 B.C. But Navarro (ANTIQUITY, II, 423) has shown that Greek influence was reaching inner Gaul from the 6th century or earlier by way of Massilia, so that the above contention falls to the ground.

But if La Tène begin at 450 B.C. or earlier, it is manifestly impossible to squeeze both phases of the Hallstatt cultures into the two centuries after 650 B.C. The lowest possible date for the beginning of early Hallstatt is nearer 750. But if we accept Randall MacIver's date for Arnoaldi, Åberg's parallelism between that period and early Hallstatt is still tenable. That parallelism on the other hand demands a substantial reduction in the high dates (1000, 900 B.C.) proposed by Reinecke, Déchelette and others for the beginning of Hallstatt.

Doubts as to the validity of his absolute chronology in no wise detracts from the utility and merits of this indispensable work. We are especially grateful for this devastating exposure of the inflated chronologies, recently popular in northern Europe, from one who is himself not only a North European, but to some extent at least has been regarded as a Pan-Germanist. We must also note as convincing the synchronisms established in detail between the sixth period of the Nordic Bronze Age (enlarged to contain some late types of the fifth) and early Hallstatt, and between the first phase of the northern Iron and Late Hallstatt. It will be seen that Denmark began using iron considerably before Great Britain.

V. GORDON CHILDE.

THE CAMBRIDGE ANCIENT HISTORY. Plates volume III, *prepared by* C. T. SELTMAN. *Cambridge University Press*, 1930. 12*s* 6*d*.

The third volume of plates for the *Cambridge Ancient History* is designed to accompany volumes VII and VIII, which deal with the Hellenistic Monarchies and the rise of Rome to 133 B.C. As Mr Seltman, its compiler, writes in his preface, 'It depicts the civilized world and its barbarian fringes eagerly borrowing, selecting, modifying the artistic ideas of the Greeks'. This volume is of exceptional interest to students of prehistory, for their knowledge is all too often limited to the parts of their subject that

are concerned with Western Europe ; and it is impossible to form any true appreciation of the art of the Celts without some acquaintance with the productions of the Ancient World to which the barbarians were so deeply indebted. Such information is to some extent supplied, and very definitely indicated in this volume of pictures. Here can be seen the familiar Marne chariot burial, four whole plates of artifacts from the La Tène site and objects of metal and pottery from other Celtic settlements together with the classical models to which they owed so much. Scythian and other products from remote districts are comparatively difficult of access, even in reproductions, for most people in England, and those who saw the fine exhibition of Art in the Dark Ages of Europe arranged by the Burlington Fine Arts Club in 1930 will be delighted to find reproductions here of the two gold stags from Hungary which were among the most striking objects in that collection.

This volume also contains some of the best known examples of Greek sculpture, including the Samothracian victory from the Louvre, the Laocoon and the Melian Aphrodite.

The Roman portrait heads and the portraits on Hellenistic coins are admirably clear, as are the pictures of the large collection of ancient coins generally. To some readers the most interesting plates will be those that reproduce ancient paintings, since, apart from vases, these are seldom available, and the mural decoration of ancient houses accords more with our own familiar furnishing than any other relic of the past, and so makes our realization of the conditions of ancient life more intimate than the contemplation of vases or sculpture can do.

The last plate of all shows a painted statue of a priestess of Tanit from Carthage. Her wings, folded round her body, are like those of an Archangel, and her style is partly Greek and partly Egyptian, and wholly lovely, and she leaves us with an unwontedly warm feeling for that strange city with its acquisitive civilization.

The illustrations have been selected by the authors concerned with the various subjects, and for their preparation and reproduction both Mr Seltman and the Cambridge University Press are to be congratulated. DINA PORTWAY DOBSON.

HISTOIRE UNIVERSELLE DES ARTS DES TEMPS PRIMITIFS JUSQU'A NOS JOURS, publiée sous la direction de Louis Réau. vol. I. L'Art Antique, Orient–Grèce–Rome. *By* G. CONTENAU *and* V. CHAPOT. *Paris : Libraire Armand Colin*, 1930. *pp.* 432 *with* 314 *illustrations and* 3 *maps.* 60 *francs.*

This book is a marvellous feat of compression, and will be of great use to those who have need of a compendium of ancient art. The first part deals with the pre-classical civilizations, and a short historical sketch is given of each, before the art is dealt with. This is wisely omitted in the sections concerned with Greece and Rome. A certain amount of comparative criticism is included in the history of the development of art, but the work is chiefly descriptive. The lesser arts, such as metal-working and mosaic, receive their full share of attention, and there are useful short chapters on Canaan, the Hittites, Phoenicia, and other districts that are sometimes omitted from standard works on ancient art. It is interesting to note as an illustration of the acquisitive nature of the Phoenician people that they employed sarcophagi that were typically Egyptian, even containing embalmed bodies, together with others entirely Greek, or rather Lycian, of the type of that fine example named after Alexander. Architecture is not given much attention, which is disappointing, though it is easy to supplement this subject from other sources.

The illustrations are well chosen, and generally well produced. A short bibliography of important books in French, English and German is added to each section.

The authors are to be congratulated on their wide knowledge of the artistic remains of this immense period, and on the production of a book of reference that provides pleasant reading. DINA PORTWAY DOBSON.

THE ARCHAEOLOGY OF BERKSHIRE. *By* HAROLD J. E. PEAKE. THE COUNTY ARCHAEOLOGIES, *edited by* T. D. KENDRICK. *Methuen*, 1931. *pp.* 260 *with* 31 *illustrations and* 6 *maps*. 10*s* 6*d*.

These admirable handbooks are the children of that weary Titan, the Victoria County History. They attempt to condense within a single octavo volume the gist of those five heavy Victorian tomes. But, we hasten to add, they achieve both more and less than their progenitors. They achieve more because they are, in every sense, more handy, more up-to-date, more usable and cheaper; less, because their treatment is necessarily not so elaborate. They are conceived on a scale befitting the generation that is to use them. It may be said that they cannot justly be compared with the V.C.H.; and perhaps this is true. But the comparison, however odious, is inevitable, and to the detriment of neither. The County Archaeologies do not cover the same ground as the V.C.H.; they are primarily archaeological, whereas the V.C.H. is primarily historical. Moreover, these later handbooks are meant for a wider public, and may have the advantage of about a quarter of a century's progress in a subject which during that period has made enormous strides. During this period of accumulation, synthesis has been impossible. The present series is a successful attempt to consolidate our achievements.

Mr Peake's book is the first and most successful attempt to provide a *catalogue raisonnée* of Berkshire antiquities. Such a book, though necessarily dull reading in parts, is the kind of thing that was wanted by students. Whether it will be much used by the traveller, by road or rail, for whom the map at the end is designed, we do not know and frankly do not care. The strong side of the book lies rather in its record of finds, which the student will welcome most heartily; for Mr Peake lets no scrap of evidence, however humble, escape him. There are a fair number of inaccuracies, as might be expected; Eardulfes lea (p. 164) is not in West Hendred at all, but Ardsley in Oxfordshire, and the Cwichelmes hlaew mentioned in it is another mound, not the celebrated Berkshire one.

We strongly recommend this book to all interested in Wessex—and who is not?

THE ARCHAEOLOGY OF KENT. *By* R. F. JESSUP. *Methuen*, 1930. *pp.* 268, *with* 13 *plates and* 13 *figures*. 10*s* 6*d*.

This book is one of the first volumes of the series of County Archaeologies, of which Mr T. D. Kendrick of the British Museum is editor in chief. It is evidently intended for the general reader. The author attempts a brief outline of the main points of English archaeology from the Old Stone Age to the Anglo-Saxon period with illustrations from Kent when possible.

The chapter on the Old Stone Age is good. Kent is rich in flint sites—Clacton, Crayford and Northfleet being household names. It is rather misleading to the uninitiated to state, when dealing with the Neolithic culture, 'they made pottery, very rough when compared with later fabrics, but still pottery'. The author mentions every theory pertaining to his subject, and in attempting to be strictly impartial tends to

encourage the general reader to embrace them all. There is also an over-emphasis of uncommon occurrences ; for example on page 72 the reader may suppose that secondary burials of the Early Iron Age are to be expected in long barrows. The description of barrows is poor, and on page 117 ' the late Bronze Age ' should read ' the Bronze Age '. There are no plans of any earthworks, and the descriptions of those mentioned is of no value to the student. The chapters on megaliths, the Roman occupation, and the Anglo-Saxon period are among the best in the book.

The author states that ' so far, no trace of early lynchets or field systems have been noticed '. It is interesting to note that in Kent, as in Wessex, there is a scarcity of flint implements on the chalk downs, although they are plentiful on the greensand ridges. This may be accounted for by the fertility of the sandy soil and the probable growth of trees on the chalk at the periods when flint implements were in use.

There is a valuable archaeological gazetteer, which would have been still more valuable if the data had been placed under the headings of periods instead of under those of localities.

R. C. C. Clay.

THE ROYAL COMMISSION ON HISTORICAL MONUMENTS, ENGLAND. An Inventory of the Historical Monuments in Herefordshire. Volume 1. Southwest. *H.M. Stationery Office*, 1931. *pp.* xlvii, 294, *with* 201 *plates*, 2 *plans and map*. 30*s*.

The concise information in the inventory of the ancient monuments dating before 1714 in southwest Herefordshire is presented in a clear and well arranged manner by authorities in archaeology and architecture. In the past, descriptions of ancient monuments have often been loosely prepared, and pure conjecture has taken the place of accurate information. There is also the temptation to which so many writers on these subjects succumb, namely that of adding a touch of romance. The inventory under review is quite free from these faults. It is a scholarly report resulting from most painstaking and careful investigation. The illustrations are all good, and are often taken from unusual angles for the express purpose of showing points referred to in the letterpress.

The numerous plans of churches will be most helpful to all those who are interested in this branch of architecture. There is a fully illustrated and clear account of Hereford Cathedral, with a large-scale coloured plan which shows at a glance the dating of the various parts of this most interesting building. Like other cathedrals it has been described and illustrated over and over again, and one would have thought that every feature of interest in the building would have been noted. Nevertheless a discovery of first-class importance is described, in that the investigators are able clearly to prove that in the 12th century there existed at the east end of the church two small towers, the remains of which have been completely overlooked in all previous descriptions. The plan of this important discovery is given on page 93.

The inventory gives all the essential information as to the earthworks in the southwestern part of the county, and most complete accounts of the ecclesiastical and secular buildings. Of the former the cathedral and Kilpeck church are outstanding examples, and of the latter Goodrich castle is perhaps the most important.

Two fine bridges are described, namely the Wye bridge at Hereford, 15th century, and Wilton bridge near Ross, 16th century.

Under the heading of secular buildings some very charming half-timbered cottages

and interesting examples of timbered roofs, plaster ceilings, wall paintings, ancient chairs, wall-panelling and so forth are illustrated and described.

The work is so different from anything which has gone before, both as to accuracy of description and fullness of illustration, that it must be possessed and examined to be appreciated thoroughly. G. H. Jack.

PRIMITIVE METHODS OF WORKING STONE, BASED ON EXPERIMENTS OF HALVOR L. SKAVLEM. *By* Alonzo W. Pond. *Logan Museum, Beloit College, Wisconsin*, 1930. *pp.* 143 *and* 64 *illustrations. Price not stated.*

The field worker in prehistory is frequently confronted with intriguing problems of type, technique and use in the flints he finds—and is usually too keen on his quest to spend much time in trying to elucidate, by immediate experiment, these recurrent questions of manufacture and intention in the varied artifacts he secures. And when, in search of enlightenment, he attempts comparison of his archaeological material with the products of the modern professional flint knapper, he is inclined to doubt whether these later productions, directed by a modern—and often commercial—mind, and executed by metal tools, form any useful criterion by which prehistoric flaking can be judged. In this Bulletin we have an interesting and convincing record of a flint worker, modern in date but primeval in resource, manipulating local material with nothing but local appliances, and producing implements identical with those of his old time predecessors.

Halvor Skavlem, ex-hunter and pioneer, fortunately settled on the site of White Crow Indian village. Induced by his discoveries of native implements to attempt to copy them, he has, according to the author, rediscovered in the manipulation of flint that ' art ' which involves a complete command of one's material.

As a result, many of our preconceptions, such as the time taken and in the infinite patience shown by the savage in making his finer implements, have to go. It is probable that an occasional favourite tool may have been worked at for years in re-sharpening and thinning. But four and a half hours for making, from the blank, a grooved ground axe, hafted ready for use—with which a tree 3 inches in diameter was cut down in 10 minutes—does not appear an excessive time allowance, even in these days of accelerated production.

A minute and a half for serrating the edge of an arrow-head seems equally economical in time, while a shapely triangular spearhead, made, under direction, by Skavlem's 12-year old grand-daughter, finally disproves the need of any exceptional technical skill. The desirability of freshly dug flint is also called in question, based on first-hand experience and reinforced by the custom of the Brandon workshops.

The work is copiously—almost redundantly—illustrated, and it is of special value to see the actual tools—teeth or bone—with which specific arrow-heads, etc., were flaked, emphasizing the fact that in these cases the modern worker and his prehistoric brother were on an equal footing as regards technical resources.

The author draws attention to the necessary correlation of tractable material and fine workmanship and urges that greater stress should be laid on the factor of the availability of good quality of flint, etc., in attempting to relate culture with type of implement, adducing the instance of the sudden appearance of the Solutrean blade as perhaps partly explicable by the acquisition of good homogenous flint by a people previously struggling with coarse grained intractable material.

Considerable doubt is expressed on practical grounds, with regard to the ' Eolith '

theory, for which the author has little use. He claims that it is a mistaken assumption that there *had* to be a stage before the rougher early Palaeolith. If and when man could chip a flint, he would make a usable tool, a fact against which the most impressive series of Eoliths, highly selected as they are, from illimitable gravels, do not form a convincing argument, owing to their relative inefficiency.

There is a useful discussion on percussion and pressure flaking, and the practical field worker will find the whole work well worth perusal.

One error in description appears under fig. 51, page 33. G. W. Willis.

A SURVEY OF ANCIENT HISTORY TO THE DEATH OF CONSTANTINE. *By* M. L. W. Laistner, Professor of Ancient History in Cornell University. *Boston : D. C. Heath and Co.*, 1930.

Professor Laistner tells us that for some years past he has given to his first year students an introductory course of lectures in general ancient history, and it is mainly for their use that he has written the present ' survey ', which is also to serve as a text-book.

The difficulties of making such a book, carrying us in time from Ur to Constantinople, and comprising all aspects of history and civilization—political, military, social, economic, religious, literary and artistic—are enormous. In practice, much has to be sacrificed in order to reduce the work to a reasonable compass.

After an introduction dealing with sources, and methods of chronological reckoning, which is too short to be of much practical value, the author takes us very rapidly through the Stone Ages and so to the early history of Mesopotamia. Here, as elsewhere, we feel that Professor Laistner has both the knowledge required and the gift of exposition necessary to make his subject interesting, if he could only be allowed more scope.

We pass through the various empires of the East to a summary of Aegean civilization, and so to Greece, and last of all to Rome.

The work is, inevitably, of uneven merit. In the literary chapters the space available is so small that a fairly important author has to be dismissed in half a dozen lines, and some features in political life, *e.g.*, the tyrannies of Central Greece, get less attention than their importance deserves. On the other hand, the social aspects of history are often so well treated in a short space as to give us a clear picture of the conditions which the author is describing.

The book will undoubtedly serve its purpose as an introduction, and may give the general reader ideas as to subjects of which he would like to have more detailed knowledge. If he has not the opportunity of hearing Professor Laistner expand some of these themes, he will do well to turn to the bibliography, which is excellently classified with reference to each chapter. In conclusion, the plates are well chosen, and for the most part well executed. J. F. Dobson.

ANCIENT CIVILIZATIONS OF THE ANDES. *By* P. A. Means. *Charles Scribner's Sons*, 1930. *pp.* 586. 30*s.*

Mr Means is an exponent of the extreme ' Monroe doctrine ' in American archaeology. Similarities of language and culture with Asia he ascribes to the fact that the ancient Andeans and Polynesians had for common ancestors a quite imaginary and non-existent ' yellow-brown race of Asia '. Every Polynesian canoe is religiously shooed away from Peruvian coasts, and a fantastic ingenuity displayed in reshuffling pure and patriotic autochthonous culture-waves.

Apart from the general question of approach, however, this large and satisfyingly-illustrated volume is (and no doubt will be largely described as) a mine of information with regard to the cultures of the Andean valleys and coasts. The comparative quotations from the Spanish chroniclers are lengthy and enlightening, and the conclusions drawn from them no more selective than a preconception warrants. Replacing a general archaic culture, the author sees the simultaneous rise of the first coastal and Tiawanakon civilizations. These reacted and resulted in the domination of the hybrid ' Tiawanakon II '. A period of decline followed, from the midst of which the Inkas and their ' empire ' rose into being.

The sections on Nasca and Chimu pottery-ware are amongst the clearest and least didactic, though it is to be doubted if the respective chronologies ascribed to these cultures can be justified. There are lengthy and well-documented surveys of every phase of Inka and pre-Inka art and industry—the section on ' Art of the Loom in Ancient Peru ' is particularly full and admirable.

Mr Means is at his happiest when dealing with general matters of sociology and religion; not when encountering definite questions of dynastic change or culture-origin. No such thorough examination of the life, material and spiritual, of all classes in the Inka ' empire ' has yet appeared in print.

J. Leslie Mitchell.

ANCIENT EGYPTIAN MASONRY. *By* Somers Clarke, F.S.A., late Surveyor to the Dean and Chapter of St. Paul's Cathedral, and R. Englebach, Keeper of the Egyptian Museum, Cairo. *Oxford University Press*, 1930. *pp.* 242 *and* 267 *illustrations, with map.* 63*s.*

This book is something worth the doing, and, being done—it is done well. It is well conceived and therefore destined to become a standard work of reference. What makes it so remarkable is the imaginative power which gives a vivid and real insight into the life, the problems and the mentality of the builders, and recreates the events of the past so vividly.

Egyptian masonry is dealt with in all its phases—from the methods of quarrying soft and hard rocks, its preparation for building, transport, lifting, laying, foundations, bedding, dressing, and carving. There are also chapters on brickwork, Egyptian mathematics, masons' tools, etc., with addenda on painting and pigments, and provision against rain.

Students of constructional work will read this book with great profit, and learn much from the ancient solutions of problems of dealing with tremendous weights, the faults and mistakes made, and will correct many erroneous conceptions that would not have gained acceptance had the research work described in this book been available in the past. Many of the architectural text-books and histories of architecture will have to be revised in the light thrown on the early phases of building craft by the laborious and patient work of the authors.

It is regrettable that so much archaeological work is stimulated by the desire to gather spectacular ' finds ' and that so little is done to elucidate fundamental conditions and the degree of civilization to which the inhabitants of a country may have arrived. The authors have vividly conveyed these conditions, and we are content to express our admiration of the profound scholarship and clear judgment that are apparent in the book, and their skill in compressing so much into a volume of 242 pages. The map, bibliography and index are as complete and accurate as could be desired.

Walter K. Bedingfield.

BEGINNINGS OF VIJAYANAGARA HISTORY. *By* Rev. H. Heras, s.j., m.a. *Bombay : Indian Historical Research Institute, St. Xavier's College*, 1929. *pp.* 144. *Rupees* 4.

This little volume consists of two lectures delivered by Father Heras at the University of Mysore. It provides an excellent survey of the early history of Vijayanagara according to tradition and the known epigraphs, and as such forms an introduction to the author's previous work upon this important dynasty. It need not be said that much research and labour is here presented in a concise form. It is a pity that there is no detailed archaeological survey of the city to set beside Father Heras' account of its history. Now that the Islamic architecture of Egypt and Persia is being scientifically studied and recorded it is high time that the works at Vijayanagara, Bijapur and Golconda were reported in detail. Building-construction in India is almost an untouched subject. K. de B. Codrington.

A STUDY OF KANSU AND HONAN AENEOLITHIC SKULLS AND SPECIMENS FROM LATER KANSU PREHISTORIC SITES IN COMPARISON WITH NORTH CHINA AND OTHER RECENT CRANIA. Part I. On measurement and identification. *By* Davidson Black. (*Palaeontologica Sinica*, vol. VI, fasc. 1, *Peking*, 1928). *Price not stated.*

In this elaborate and extremely technical monograph Dr Black gives the results of his observations on the prehistoric crania excavated by Dr Anderson in central and north China. Dr Black has provided all the measurements that the most meticulous of anthropologists could desire, together with outline tracings. He has further introduced the most modern statistical methods into his survey. It is regrettable, but a fact, that the archaeologist is not usually able to find sufficient material in his excavations for statistical treatment and the material now under review is no exception to the rule. No doubt statistical results look tidy and attractive ; they form, when properly handled, a most valuable method of summarizing results, but in their very essence they depend on fairly long series, say a collection of at least forty or fifty specimens of the same sex. Through no fault of his own Dr Black has not got sufficient numbers, and it seems very doubtful whether all his arithmetic was justified. His conclusions however are simple : that the earlier populations differ more widely from the modern than the later specimens from the same place, and that the earlier peoples show a certain resemblance to one element in the population of Tibet. It is to be hoped that further excavations will be more prolific and allow these conclusions to be amplified. L. H. Dudley Buxton.

CORPUS OF DATED PALESTINIAN POTTERY. *By* J. Garrow Duncan. Including pottery of Gerar and Beth-Pelet, dated and arranged by Sir Flinders Petrie, and Beads of Beth-Pelet, dated and arranged by J. L. Starkey. *British School of Archaeology in Egypt* (*University College, W.C.* 1). *pp.* 21 *and* 120 *plates.* 30*s.*

The corpus is a compilation from various sources but has been built up round the Tell Jemmeh (Gerar ?) and Tell Fara (Beth-Pelet ?) collections, and the classification adopted is that used by Sir Flinders Petrie, which the author tells us he agreed to adopt in the end, after having arranged his material in the usual Neolithic—Roman periods.

It is an attempt to put in a convenient and a handy form all the information a field-archaeologist might want from the published works on excavations in Palestine. Many

of the specimens illustrated will figure later among the exhibits of the New National Museum at Jerusalem, now in course of building. It is to be hoped then, that a consensus of expert archaeological opinion will be obtained, so as to arrive at a scheme of chronology and a system of dating and arrangement, as precise as may be and as consistent as possible, for the assistance of those students who hope to profit from the large collection of material that is becoming available and which the new museum is intended to house.

It is very difficult to make head or tail of the illustrations :—broadly speaking we start with bowls and finish with bottles. The types are not collected together nor is any attempt made at chronological order. Each specimen so far as it serves, is marked with a dynasty in Roman numerals, sometimes with B, or L.B. in addition ; the later periods have letters only, some have nothing.

The main exhibits are of the Bronze Ages and a few of later periods. Megiddo has not been drawn on, for though it has been in course of the most exact and scientific excavation for some years nothing so far has been published ; so material there was not available for the period of the Hebrew kingdoms. The Greek, Hellenistic, Roman and Byzantine periods are almost ignored. This may be because they are unfashionable, archaeologists taking no interest in them in Palestine. The fascinating and beautiful medieval Arab and Crusading pottery is not represented at all ; not because it is not available for it is present in most Palestinian sites, but for the same reason possibly. It is to be hoped that the authorities of the new Palestine Museum will not neglect them ; it is always curious to find that the late Bronze and Early Iron Ages seem to be the end of civilization in Palestine, rather than its beginning.

The drawing of the plates is poor : the line employed is harsh, mean and wirey, nor has sufficient care been taken in neatness and finish. No definite system of section and elevation has been followed. The rare attempts at perspective and projection are crude in the extreme and the reduction of the pottery to 1 : 3 has reduced some of the pots to microscopic proportions. G. HORSFIELD.

THE SUMERIANS. *By* C. LEONARD WOOLLEY. *The Clarendon Press, Oxford*, 1929. *pp.* 193. 6*s*.

This well-written little book will give the layman a good idea of the Sumerian civilization. For scholars it will prove useful for its excellent reproduction of some of the important monuments of Ur. There are many traces of lack of profound knowledge of the inscriptions. For example the well-known ideogram for a kind of priestess SAL-ME (p. 107) should be rendered *nadîtu* or *natîtu*, and there are many statements in direct conflict with modern Sumerology and Assyriology. For example it is said (p. 122) that the myths of Tammuz and Adapa provided stock subjects for artists. All scholars would be grateful for any archaeological illustrations of these myths, but nothing whatsoever has been found unless the familiar figurines of mother and child represent Ishtar with Tammuz as a babe in her arms. But this is unlikely, since these figurines never have the head-dress of deity. The Accadian story of the Flood is described (p. 122) as Sumerian, the citation (pp. 123–4) being from the Semitic version in the Epic of Gilgamish, which induces one to question whether the author distinguishes between the Accadian and Sumerian languages.

Despite the obvious signs of utilizing translations and not original sources, the book, on the archaeological side, is trustworthy and useful. In a book of this kind the sources

and names of authors relied upon for all statements should have been faithfully indicated. The author possesses an attractive literary style and ability of presenting his material.

S. LANGDON.

LIST OF OBJECTS OF INTEREST IN AND AROUND SLEAFORD, LINCS. *Compiled by the* Rev. Canon ALFRED HUNT, Kirkby Laythorpe Rectory, Sleaford.

LIST OF EARTHWORKS IN THE COUNTY OF LINCOLNSHIRE AS CLASSIFIED BY THE REV. CANON HUNT. 10th edition.

The information in these lists is, we regret to say, wholly untrustworthy. We should not have reviewed them at all were it not that they seem to have been widely distributed, and that it is therefore a duty to point out their errors. Of the 41 'Roman' earthworks many are undoubtedly medieval and many others of unknown age. The identifications of ancient place-names—real and imaginary—are quite worthless; there was no such place as 'In Medio', and the location of the Navione of Ravennas at Wainfleet, first made by Stukeley, is impossible. (The true site is at Brough in Derbyshire). Causennae (Ancaster) is also identified with a query in the same list with Ropsley Grange Camp. The medieval site at Sempringham (described in ANTIQUITY, v, 106–9) is called Roman. With greater knowledge of Lincolnshire topography one could prolong the list of errors indefinitely.

THE ANCIENT BRIDGES OF THE NORTH OF ENGLAND. *By* E. JERVOISE, A.M.INST.C.E. *The Architectural Press, 9 Queen Anne's Gate, Westminster. pp.* XII, 146 *and* 80 *figures.* 5*s* 6*d.*

The first volume of the survey of the ancient bridges of England was reviewed in ANTIQUITY for March (p. 144). The second volume is written precisely in the same style, and is equally well presented and illustrated. It deals with bridges of Northumberland, East Yorkshire, Cumberland, Westmorland and Lancashire.

Quite apart from the technical value of Mr Jervoise's work, and although he does not make a special point of the necessity for retaining our ancient bridges, the result must be a great encouragement to all those who are engaged in the preservation of the English countryside, and should secure the most careful deliberations of Road Authorities before they consider demolishing any of the beautiful examples of bridge work which are so well described. The fact that many ancient bridges will have to disappear is admitted, but it cannot be denied that in the past many, similar to those illustrated in these works, have been hastily destroyed without due regard being given to the possibilities of widening them. Further, it cannot be denied that bridges which have replaced the ancient ones do not possess any of the charm of their predecessors, and possibly will not last as long.

G. H. JACK.

A SEASON'S WORK AT UR. *By* H. R. HALL. *Methuen and Co.*, 1930. *pp.* 300 *and* 277 *illustrations.* 25*s.*

This volume, his last legacy to us, makes us feel more than ever what a loss Dr Hall's premature death has been to learning and scholarship. It is not only a record of the archaeological work he initiated in Babylonia immediately after the war, but it also illustrates his combination of wide archaeological knowledge and insight, sane judgment and sense of humour. He has called it 'an unofficial account' of his work at Ur, Al-Ubaid, Abu-Shahrain 'and elsewhere', but it is all the more valuable for that reason.

Full details in regard to the excavations at Al-Ubaid are especially important as it was there that the painted pottery was first discovered in Babylonia and its significance and relationship first pointed out.

The book, in fact, is a valuable contribution to the archaeology of Western Asia as well as a readable volume which the general public will find interesting. The numerous and excellent photographs which occupy its pages are a boon to the scholar and will also attract the ordinary reader. As a record of exploration and excavation in Babylonia it is worthy to stand by the side of Layard's classical work. In the account of Ur notice is necessarily taken of Mr Woolley's subsequent discoveries.

What may be called the human side of the narrative adds much to its interest. Travelling, even semi-officially, was exceedingly difficult, not to say physically trying, immediately after the Armistice, and southern Babylonia was still to a large extent at the mercy of the Beduin. Excavation was, consequently, not the easy matter it has since become and Dr Hall had to be careful in his selection of sites. Digging at Abu-Shahrain and Al-Ubaid, for example, was not unattended by danger.

Perhaps the most important incident in Dr Hall's campaign was the discovery of the painted pottery of Al-Ubaid. It has opened out a new chapter in the prehistory of the East, and in conjunction with later discoveries, more especially those of Prof. Andersson in China, has to a large extent revolutionized our ideas both of pre-Sumerian Babylonia and of the cultural relations of neolithic Asia from East to West.

As regards the relations of Sumerian Babylonia to the early culture of Egypt I am fully in agreement with Dr Hall. The imitation of the Babylonian seal-cylinder by the pre-dynastic Egyptians is of itself a proof of the influence of Sumer upon the Egyptian Delta. In a country where every pebble was of value and the writing material was clay the cylindrical seal was a natural invention; in northern Egypt, where neither was the case, the seal could have been only a foreign importation and accordingly passed out of use when the early culture of the Delta established itself in Upper Egypt.

The prehistoric pottery found at Abu-Shahrain raises the hope that before long systematic excavations will be undertaken on the site. ' All round the mounds, and more especially on the northeast and southeast sides ', Dr Hall tells us, ' stretched out a flat space, about 100 yards or more, which was covered with innumerable fragments of ancient painted pottery, showing geometric or curved and floreated designs in black pigment on the greenish-drab surface of the vase. Sometimes the ware was soft, in which case the colour was brown or even reddish ; at others it was almost vitrified, in which case the ware was green and the colour a vivid black. Obviously this ware was prehistoric. No such pottery is known from Mesopotamian excavations of the historic period '. Abu-Shahrain was the ancient Eridu, the seaport of prehistoric Babylonia. It was the home of Adapa, the first man according to Sumerian tradition, though in northern Babylonia the title was claimed by Lullu who seems to have been of Mitannian or Assyrian origin. In the later days of Babylonian history Eridu ceased to be a port, and consequently became merely a religious site. It was, however, still inhabited in the age of the Third Dynasty of Ur (2300 B.C.) and in the ruins of a house immediately beneath a pavement of Bur-Sin of that dynasty a lump of opaque blue glass was found. As Dr Hall remarks, this is possibly older than any Egyptian glass and is certainly earlier than any blue glass yet discovered in Asia.

The last chapter but one of the book is devoted to the excavations at Al-Ubaid. ' No previous visitor had noted the spot or had picked up any of the thousands of fragments of painted pottery, flint, chert, obsidian, carnelian and crystal flakes, disk-heads,

nails and pegs, fragments of arragonite (alabaster) vases, inlay-plaques of arragonite and red stone, copper nails and so forth, which strewed the desert as at (Abu-)Shahrain'. 'Maceheads of limestone, plain or veined, were found both at Shahrain and at Al-Ubaid, of the two types, pear-shaped and flattened spherical, which are both also found in Egypt, at Hissarlik, in Cyprus and in Italy'. Among the objects discovered on the spot, the most striking were the copper lion and leopard (or cat ?) heads and the great relief of the winged Imdugud enthroned between two stags which is now in the British Museum. Al-Ubaid belongs to what may still be called the prehistoric period of Babylonia, the latest datable object being an inscription of Ânni-padda the second king of the first dynasty of Ur (3000 B.C. or earlier) which was discovered there by Mr Woolley in his subsequent excavations on the site. A. H. Sayce.

FOUNDATION FIGURINES AND OFFERINGS. *By* E. Douglas Van Buren. *Berlin : Schoetz and Co.*, 1931. *pp.* xvi, 81 *and* 20 *plates.* 40 *marks.*

Mrs Van Buren's monograph is a model of scientific work. It is at once methodical and exhaustive, and its wealth of references is astonishing. It may be regarded as a supplement to the author's volume on the clay figurines of Babylonia and Assyria since the figurines and offerings with which she deals in the present volume are also those of the same countries.

At an early period in Babylonia the clay image was reproduced in copper, the original stump or post upon which the figure rested taking a nail-like form. Mrs Van Buren is probably right in thinking that the post was primarily a representation of the reeds which formed the door-posts of the primitive Babylonian hut. Babylonia was a stoneless land, and to a large extent also a treeless one, and the clay house in it was preceded by a house of reeds. The figure which surmounted the post or 'nail' represented the guardian spirit of the place which protected the building and its occupants and kept watch over the door. In Sumerian times the spirit or *zi* assumed a human form, Sumerian religion being anthropomorphic, man having been made in the image of God, the deity also was naturally pictured in human shape.

The pre-Sumerian population had been animistic, and animistic beliefs accordingly survived by the side of the later intrusive cult. By the side of the figurines we find other foundation deposits which testify to this. The dog, especially in Assyria, sometimes makes its appearance as guardian of the household, while at times the human figure is partially clothed with a fish-skin, reminiscent of the days when the fisherman built his cabin amid the marshes of Babylonia.

The figurine itself assumed various forms in the course of Babylonian history. Before the age of the third dynasty of Ur, for example, we already find the *canephoros* who carries on the head the basket or 'carrying-pad' containing the bricks employed in the construction of a temple. In the religious ceremony which marked the foundation of the building the king himself as servant of the god headed the procession of bearers, a considerable number of whom, however, are represented by the figurines as women instead of men. In Assyria, again, which was a land of stone, the stone image tended to replace the clay figurine of Babylonia, the images, like those of clay, representing various deities and other supernatural beings and possibly also priests posing as gods.

For all who are interested in the subject Mrs Van Buren's monograph is so complete and at the same time so impeccably accurate that it is not likely to be superseded for many a day. The text is followed by a number of excellent photographs. A. H. Sayce.

THE CITY WALL OF IMPERIAL ROME : an account of its architectural development from Aurelian to Narses. *By* I. A. RICHMOND. *University Press, Oxford,* 1930. *pp.* XIV, 279, *with* 22 *plates and* 45 *figures in the text.* 42*s.*

Mr Richmond originally came out to Rome for quite a different purpose, but in the course of his work had occasion to examine part of the Imperial wall, which was then considered to be a comparatively simple structure. He noticed, however, some interesting points hitherto unrecorded, and eventually undertook the task of tracing the development of the wall in its entirety down to the end of the Roman period. The result is the present work, which completely revolutionizes our knowledge of the wall itself, and incidentally throws new light upon the military history of the Late Empire.

In place of the three periods previously recognized, Mr Richmond finds no less than eight. The wall began as a low structure, about 26 feet in height, with gateways of three standard types reflecting the relative importance of the roads passing through them. It was thus designed under Aurelian as a protection against marauding barbarians, rather than against a regular army equipped with the weapons of siege warfare. Against the latter it would not be effective until a later period—Mr Richmond thinks under Maxentius—when on the rampart-wall of the first period was built 'a mighty gallery, making a covered passage, provided with a varying number of loop-holes towards the country, and open arcades towards the city' ; the height of the whole was thus doubled, the gateways of necessity all being remodelled, and two, Portae Appia and Asinaria, being entirely rebuilt. The next stage came under Honorius, when with the approach of Alaric certain of the gateways were strengthened, and the towers converted 'from ballista-casements into castles for archers'. After Honorius Mr Richmond distinguishes five further series of repairs, the most interesting being those of Belisarius in 547, which he identifies with the refacing in 'ill-selected blocks of tufa and peperino' to be seen, *e.g.*, at points between Portae Appia and Ostiensis ; and he ingeniously explains Procopius' phrase ὅσον ἐς τριτημόριον τοῦ παντὸς μάλιστα (B.G. III, 22) not in terms of length, 'pulled down nearly a third of the wall', which is demonstrably untrue, but in terms of height, 'undermined it to nearly a third of its height'.

To the reviewer it is well-nigh incomprehensible that Mr Richmond should not have been anticipated in many of his discoveries. When once the difference is pointed out, it seems incredible that anyone should have failed to distinguish between the good brick-facing below the string-course of the wall and the indifferent work above ; or have failed to notice the Aurelianic merlons which at points remain incorporated in the curtain of period II ; or have failed to see that the single-arched curtain of Porta Ostiensis East, for example, cannot be original. The evidence, by its very nature, has been there for all to see, yet to Mr Richmond must go the credit of having been the first to point out its existence. The question indeed must inevitably be asked how far similar methods applied to other equally famous monuments would produce equally important results.

The book is well written ; everywhere fact and explanation are rigidly separated, so that in the unlikely event of the author's thesis being disproved by further discoveries, the work would still remain invaluable to archaeologists of the future, as giving an account of the wall as it now is, or rather, as it recently was, for necessary repairs are still being undertaken, and yet another 'period' is being added to the many through which it has passed. Misprints are few ; I have noticed only one of importance ; on page 251, line 32, for 'third' read 'fourth'. The photographs are good, and a series of isometric drawings of the gateways is excellent. F. H. WILSON.

THE ARTS IN EARLY ENGLAND. Vol. VI, pt. I. *By* G. BALDWIN BROWN. *John Murray*, 1930. *pp.* XI, 91 *and* 24 *plates.* 15*s.*

Professor Baldwin Brown's great work marches majestically on, and each instalment places us further in his debt; I fear it will soon be impossible to indicate, except with an excess of superlatives that he will not like, the extent of our respect and admiration for him. The first part of the sixth volume is, however, a book of modest length, and it looks a trifling thing when set beside its row of massive brothers; nevertheless I am glad that this collection of short studies has appeared separately, for the five single antiquities that it describes are all of them of more than ordinary interest, and the work has, in fact, a total value that has surprised even those who know what to expect from this distinguished author. The best thing in the book is strangely enough the appendix, for this contains fine illustrations and a full description of the Tassilo chalice; here Professor Baldwin Brown makes a point which I believe is new to everybody when he calls attention to the 'penetration' in the interlacing designs. It is a feature that is definitely not Irish, which is an important matter; but, otherwise, it is an embarassing discovery, for though there is good reason for thinking the chalice an Anglo-Saxon work, we cannot claim this 'penetration' as a trick of English craftsmen in the late 8th century. Possibly our lack of comparative material is to blame here, but it is an uncomfortable fact that when 'penetration' does become common, it is in 9th century Scandinavia that it seems to have its home, and we need something beside the Tassilo chalice to indicate to us where the Vikings first saw this special little trick in interlacing design. I imagine that we shall have to search Carolingian MSS and metalwork for the source of this disconcerting feature.

The other objects discussed are the Stoneyhurst gospel (which was in last year's English Medieval Art Exhibition at the Victoria and Albert Museum), St. Cuthbert's portable altar, the Franks casket, and the Hackness cross. The author suggests that the gospel, which has a 7th century English binding, may have been taken from Bede's tomb and transferred to Durham by Elfrid Westoue (if it is really Bede's own book, of which he finished the translation on his deathbed, Stoneyhurst has one of the most precious relics in all England !); as to the altar, the view taken is that the wooden slab is the original portable altar of St. Cuthbert, while its silver plate is a subsequent embellishment added on an occasion when the tomb was reopened. The baffling description on this plate can then be read as the beginning of an honorific declaration to the effect that all the objects in the tomb were the possessions of the Saint. The Franks casket is the subject of the full discussion it deserves now that Dr Bröndsted has tried to persuade us that it was made in southern England and not in Northumbria (our author wins it back for Northumbria). The Hackness cross is also described in detail and well illustrated; but even with Professor Macalister's help it is impossible to make anything of the cryptic inscriptions, and, as we do not know when Oedilburga lived, there is still nothing left but the ornament to tell us how much older than 869 this cross may be. Professor Baldwin Brown deals rather roughly with the contour-lines of the griffins and with their diapered bodies in the course of his argument for an 8th century date; but the destructive argument here is a valuable bit of work and I am always glad when I see a trusted criterion of date under fire. So few of them can stand it.

T. D. KENDRICK.

BOOKS RECEIVED*

OLD LONDON BRIDGE, by GORDON HOME; with an appendix on trade-cards and tradesmen's tokens, by AMBROSE HEAL; 61 illustrations in photogravure, and numerous black and white drawings from contemporary sources. *John Lane*, 1931. pp. 382. 31*s* 6*d*.

GEORGIAN ENGLAND, by A. E. RICHARDSON; a survey of social life, trades, industries and art from 1700 to 1820. *Batsford*, 1931. pp. 202, 261 illustrations. 21*s*.

THE WAY OF THE SEA, by HAROLD PEAKE and HERBERT JOHN FLEURE. [Corridors of Time, VI]. *Oxford University Press*, 1929. pp. 168. 5*s*.

THE SCOTS MERCAT 'CROSS', by W. G. BLACK. *William Hodge & Co., Edinburgh and Glasgow*. 2nd edn., 1930. 2*s* 6*d*. [1st edn. reviewed in ANTIQUITY, II, 498].

HEBREWISMS OF WEST AFRICA—from Nile to Niger with the Jews, by JOSEPH J. WILLIAMS. *The Dial Press, New York*, 1930. pp. 443, 2 illustrations. $7.50.

A BIBLIOGRAPHY OF THE WORKS OF J. B. BURY, by NORMAN H. BAYNES. *Cambridge University Press*, 1929. 10*s* 6*d*.

PROCEEDINGS OF THE SEVENTEENTH CONGRESS OF ORIENTALISTS, Oxford, 1928. *Oxford University Press*, 1929. 7*s* 6*d*.

LA BOHEME PRÉHISTORIQUE. I. L'âge de pierre, par ALBIN STOCKY. *Prague*, 1929.

THE PLACE-NAMES OF SUSSEX, by A. MAWER and F. M. STENTON, with the assistance of J. E. B. GOVER. *Place-Name Society*, 1929 and 1930. 2V. 40*s*.

THIS REELING WORLD, by FIRTH SCOTT. *Blackwood*, 1931. 7*s* 6*d*.

ARTISTS IN STRING, by KATHLEEN HADDON (Mrs O. H. T. Rishbeth). *Methuen*, 1930. 6*s*.

THE LAST GLACIATION, by ERNST ANTEVS. *American Geographical Society*, Research Series no. 17. 1928.

ROYAL COMMISSION ON HISTORICAL MONUMENTS (England). LONDON, vol. 5. East London. *H.M.S.O.*, 1930. 17*s* 6*d*.

ANCIENT CHURCH CHESTS AND CHAIRS in the Home Counties round Greater London, by FRED ROE. *Batsford*, 1929. 21*s*.

DIE BANDKERAMIK IN UNGARN, by FERENC V. TOMPA. *Budapest*, 1929.

VORGESCHICHTLICHES JAHRBUCH, band IV. Bibliographie des Jahres, 1927. *Walter de Gruyter, Berlin and Leipzig*, 1930. 45 *marks*.

THE MONUMENTAL EFFIGIES OF SUSSEX, by H. R. MOSSE. Specially compiled for brass-rubbers and church-visitors. *Combridges, Hove*, 1930. 3*s* 6*d*.

INTRODUCTION TO REGIONAL SURVEYING, by C. C. FAGG and G. E. HUTCHINGS. *Cambridge University Press*, 1930. 7*s* 6*d*.

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* The inclusion of books in this section does not necessarily mean that they will not be reviewed in a subsequent issue.—EDITOR.

IN TRANSYLVANIA
Ph. O. G. S. Crawford